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BABYLONIAN PROBLEMS

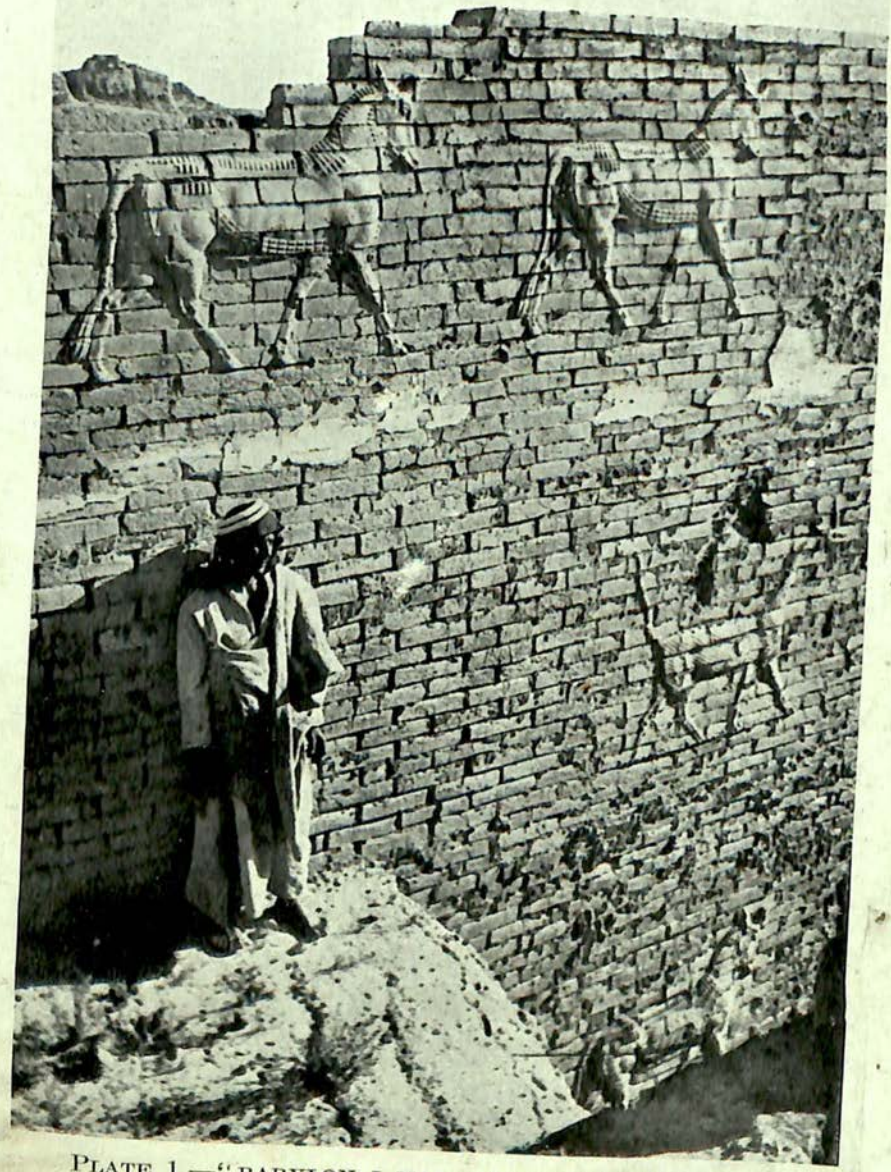

PLATE 1.—"BABYLON I MADE GLORIOUS THAT MEN MIGHT BEHOLD."

(See p. 180.)

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[*Frontispiece.*

BABYLONIAN PROBLEMS

BY LIEUT.-COLONEL W. H. LANE
INDIAN ARMY (RETIRED)

WITH AN INTRODUCTION BY
PROFESSOR S. LANGDON

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WITH MAPS AND ILLUSTRATIONS

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FIRST HIGH COMMISSIONER

OF

MESOPOTAMIA

AS A SMALL TOKEN OF THE AUTHOR'S ESTEEM

FOR

A GREAT PERSONALITY

PREFACE

THE reader may ask the question, on what grounds a layman should presume to discourse on archæological and scientific problems connected with Babylonia. The question is certainly a fair one; and the author is the first to acknowledge that unless the theme were approached from a different view-point to that expounded by other writers, there would be no justification whatsoever for the publication of this volume.

The author has studied the various problems presented, from a topographical perspective, and it is hoped that some new light has been thrown on the subjects of controversy which have engaged the attention of scientists for many decades past.

The author has endeavoured not to lay down the law, but rather to marshal all the evidence procurable relevant to any particular issue; to pass an impartial judgment on such evidence, and to leave the verdict to be pronounced by the reader.

The utility to scholars of a work of the description of the book now presented to the general public will be dependent mainly on the first-hand topographical knowledge possessed by the author.

The author spent two and a half years in Mesopotamia, during which service many opportunities were presented of examining personally, from an archæological and historical outlook, the topographical details of the most important districts. Six months were spent at Hillah, where the environs of Babylon were explored consistently. The terrain between Hillah and Sippar

was also visited. For nearly a year the author was located with head-quarters at Samarrah, during a portion of which period he was Officer Commanding the Baghdad-Samarrah section of the line of communication to Mosul, with posts at Kazimain, Tazi, Mushahida, Sumaicha, Balad, Istabalat, and Al Ajik railway stations. Three short spells were passed in Baghdad, where the extensive ruins of Saddah were investigated. The author was acting Brigade Commander of the 52nd Infantry Brigade when the new line of communication to Kirkuk via Baquba, Quaraghan, and Kingirbah was opened. The section of railway line from Baghdad to Quaraghan was traversed by motor trolley as well as by train. The route from Quaraghan to Kingirbah was followed both by motor car and train. For some months the regiment of which the author was temporary Commandant was stationed with head-quarters at Kingirbah, and with detachments at Quaraghan, Sallahiyah, Kifri, Tuz Khumārtu, Tauk, and Tazah. Later the unit was moved to Kirkuk, with a full company established at Erbil, so that this section of the Royal Road from Sardis to Susa was personally examined, and the outer wall of the ancient city of Arbela was traced throughout almost its entire length.

The topographical details set forth in Chapters II. and III. are the result of exploration indefatigably conducted on the actual ground, in which new discoveries came tumbling over each other with bewildering rapidity.

In this connection the author acknowledges with grateful thanks the facilities for the exploration of the area placed at his disposal by Major Berry, Political Officer, Samarrah.

In addition to work in the field, the compilation of this volume has entailed laborious study of books of reference in the Reading-Room of the British Museum. In this regard the author would desire to take the

opportunity of thanking the Superintendent of the Reading-Room, and his assistants, for their unfailing courtesy, extended at all times.

The author has also to thank Miss E. M. Lamond for the translation from German works of the appendices containing the cuneiform inscriptions, English translations being non-existent.

It is hoped that the inclusion of the appendices will justify the extra cost of production. Firstly, the historical and descriptive matter contained in the appendices should interest a large circle of readers, both military and scholastic. Secondly, many readers cannot devote the leisure and secure the opportunity, or they do not harbour the inclination, to visit the British Museum for the purpose of studying the records of the classical and other writers; and, outside the walls of that institution, the majority of the volumes bearing on the subject are with difficulty obtainable in any but a purely scientific library. Thirdly, by the publication of these excerpts the critic can satisfy himself that the evidence collated from the extracts has not been so construed as to suit the trend of the arguments brought forward by the author in contradistinction to the meaning which the original historian wished to convey. Fourthly, the collection of such material within one cover should in itself tend to enhance the scientific value of the volume.

The author recognises that the matter presented is by no means complete; but he feels satisfied that sufficient evidence has been assembled to uphold the deductions which he has construed. If the reception of the book by the general public warrants the striking of a second print, additional reference-matter may find a place within its pages.

The author is indebted to Professor Albert T. Clay, of Yale University, U.S.A., for friendly advice and encouragement. He is also greatly indebted to Professor

Stephen Langdon, of Oxford, for checking the translations of the cuneiform inscriptions with their originals, for the interpretation of the meaning of abstruse passages in these inscriptions, and for his valued assistance in reading the MS. before going to press, thereby ensuring that the Assyriological portion of the work is as up to date as our knowledge of ancient Babylonia at present extends.

The author has one plea which he would desire to submit. Up to the present time, excavation has been confined almost wholly to certain standard mounds situated largely in Lower Mesopotamia and Assyria. Other sites outside these areas have not yet even been scratched, although the treasures buried beneath their accumulations of rubbish may be of inestimable value to the scientist. During the course of his exploration, the author recognised the great benefit that would accrue if an archæological survey of Mesopotamia, *i.e.* the area that is embraced by the British mandate, could be conducted. A systematic programme for excavation could then be evolved covering many years of the future. The archæological survey itself should prove of immense value; that is to say, if the subject-matter of this volume furnishes any indication. It should prove of great assistance to the excavator, for he would not be starting out on his mission "blind," so to speak. Indirectly, also, it should prove of considerable value to science. The force of human nature is a factor that cannot be suppressed. All the laws in creation will not deter the Arab from robbing bricks for the construction of his domicile. If he is forbidden to delve in broad daylight for the bricks he requires, he will assuredly burrow under cover of darkness.

An archæological survey could differentiate between the mounds to be reserved for excavation under scientific supervision, and those considered of minor importance. These latter ruins could be handed over to the

Arab with free permission to use them as a field on which to prosecute his nefarious practices. In this manner many priceless relics would pass within the portals of our museums, which are at present utterly lost owing to the law of necessity by which the vandal is governed, or by his crass stupidity.

The tourist to Babylon should also receive consideration. He, or more probably she, will, in the space of a few years, become an ever-growing entity in Mesopotamia, whom it will prove more profitable to propitiate than to coerce. She will not leave Babylon until she is the proud possessor of a portion of a stamped brick. Get it she will, either by hook or by crook. Would it not be more judicious to collect some of the tens of thousands of stamped fragments that lie scattered over the ruins of Babylon and Birs Nimrud, and dispense them at a reasonable figure under official cognisance, than to make the tourist pay an exorbitant sum to an avaricious Arab, who would have no scruple whatsoever in knocking down an ancient piece of wall in the interest of his pocket?

Finally, one fact must be admitted. Only the very fringe of topographical research has been touched in Mesopotamia. The field for exploration is still of enormous extent, and awaits a master-hand to unravel its many mazes. Some geographers have essayed to do this from the air. Air reconnaissance at a speed of ninety miles an hour and at an altitude of 3000 feet or over may be useful in its own sphere, but if topographical research is to be of any real scientific value, such must be conducted most emphatically on *terra firma*. Patient and laborious tramping on foot, or hours spent in the saddle at a walk, can prove the only infallible method by which accurate topographical-archæological conundrums can be unravelled.

Can a piscatorial simile be employed without giving offence to the archæologist? Where no offence is

intended, such a simile should not be taken amiss. The topographer is the pilot-fish to the archæological shark! He must scour the high seas of a derelict past in search of a long-hidden feast for his master, the archæologist

Has the present volume vindicated the existence of the pilot-fish?

W. H. LANE.

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INTRODUCTION

By Professor S. LANGDON, M.A., Oxford

Colonel Lane, in the Preface, explains his reasons for writing this book. His plans are modest, but he has undoubtedly given to the scientific student of Babylonian history material of great importance. He has specialised upon the topography of the region between the ancient capital of Babylonia (Babylon) and Opis, or Akshak. It is unnecessary for me to say that I agree with the facts and theories contained in this book. The criticisms which I had to offer were settled between us before it went to press, and I have, therefore, the more pleasant task of setting forth the reasons why the problems discussed here should receive the careful attention of students of ancient history.

In the region which comes within the survey of the author's work lay four of the most ancient cities in human history. Kish, modern Oheimer, including the neighbouring mound Inghara, eight miles east of Babylon, is the first city whose name occurs in Sumerian inscriptions. It was the oldest known capital of the Semites of Accad, and is said to have been the seat of a prehistoric line of twenty-one kings, who reigned before 4000 B.C. The dynastic lists assign mythical figures to their reigns, none of them reigning less than 400 years and one for 1200 years. The Babylonians believed that this city was a capital 20,000 years before the oldest Sumerian inscriptions. These traditional dates are, of course, mythical, but Kish was a capital, and the centre of Sumerian and later Semitic civilisation, long before 4000 B.C.; the Sumerians were previously in possession of this region, later known as Accad, so named after the new Semitic capital Agade, founded by Sargon of Kish about 2900 B.C. Agade, the seat of the

powerful Semitic empire of the ancient Sargonids, who secured for themselves the hegemony of all Western Asia and Anatolia, lay in the very centre of the region whose topography is discussed here. It may be covered by the ruins of ed-Dér, "the monastery" three miles north-east of Abu Habba, the ruins of ancient Sippar. Kish was the seat of an old Sumerian cult of the war-god *Ka-Di*, pronounced Isir, or of Ilbaba, a later local name of the war-god Ninurashā. Mesilim, the founder of the third dynasty of Kish, *circa* 3638 B.C., and the first real historical personage in ancient history, claims to have established peace between two old Sumerian cities of the south, Lagash and Umma, by the command of his god Isir.[1] Isir is a prehistoric Sumerian title of both the mother-goddess Innini and of her son Abu, the dying god, and describes them both as ophidian deities.[2] Their original home was Dîr, a city in Ashnunnak, a land between the Tigris and Elam, probably south of Susa near the southern reaches of the river Kerkhah, the ancient Uknû.

The translation of the old earth-god of Dîr to Kish is extremely important for the prehistoric movements of the Sumerians, who undoubtedly founded all the great cities and cults of the region under discussion long before the Semites arrived at Kish, Sippar, Cutha, and Akšak or Opis. From this indication alone we draw the inference that the Sumerians moved into this area from a region to the south-east beyond the Tigris; in fact, their traditions locate the land of Paradise still farther south, in Dilmun, on the eastern shore of the Persian Gulf.[3]

The prehistoric Sumerian cult of the city Dîr, in Ashnunnak consisted of Anu the heaven-god,[4] Innini

[1] THUREAU-DANGIN, *Alt-sumerische und akkadische Königsinschriften*, p. 36. The reading of this name as *Isir* was established in my *Sumerian Liturgical Texts*, p. 177, n. 4.

[2] See LANGDON, *Tammuz and Ishtar*, p. 16, n. 1.

[3] See LANGDON, *Le Poème Sumérien du Paradis*, pp. 4–15.

[4] Called ^{d}.GAL in the list of Asurhaddon, *Beiträge zur Assyriologie*, VI., 238, 42; and see FRIEDRICH DELITZSCH, *Die Babylonische Chronik*, p. 32.

the earth-goddess,[1] Muš or the serpent deity,[2] the goddess Kurunit, Sakkut (a solar title of the old earth- and war-god Ninurashâ), Bubêki and Marbîti. When the Sumerians moved into lower Mesopotamia from the region east of the Tigris the pantheon of Dîr migrated to various great Sumerian cities. The cults of Innini, a type of the earth-goddess, and of Anu were installed at Erech. Isir, as a title of the god of vegetation and a war-god, was transferred to Kish, where in later times he was known as Ilbaba. Marbiti, whose name seems to be based upon a late epithet [3] of the serpent-god Muš, was transferred from an ancient city, Malaki, near Dîr, to Borsippa. The Weld-Blundell collection of the Ashmolean Museum contains a fine Sumerian prism on which is written an epical poem concerning the two early kings of Erech, Enmerkar and Lugalbanda. The poem proves that Lugalbanda came to Erech from Dîr and that the mother-goddess Innini also consented to leave her ancient home beyond the Tigris and make her abode in Erech and Kullab (a section of the great city of Erech). But down to the latest times Dîr retained its old position of religious significance. It was known as the "city of the heaven-god," the first deity of the prehistoric Sumerian pantheon.

Moreover, the Elamic deity Tishpak was clearly identical with the Sumerian ophidian deity Muš, or Isir, of Dîr, and he is identified by the Babylonian scribes with the war-god Ninurashâ. At Susa he was known as *Šušinak*, the "Susian god," and his name is written with the *gunu* of the Sumerian sign for the mother-goddess Innini of Dîr, a sign which also forms

[1] Called *šarrat Dîr*, or queen of Dîr, *ibid.*, and the Dîrite goddess, LANGDON, *Sumerian and Babylonian Psalms*, 264, 14; *ilu Anu u ilat Di-ri-tum*, "Anu and the Dîrite goddess," ZIMMERN, *Die Bechwörungstafeln*, II., 161.

[2] In Ašurhaddon's list this serpent deity is both male and female, *bêlit balāti* or *bêl balati* (variant), and Isir is identified with ^{d}Muš (Sîru in Semitic), in a syllabary.

[3] See KING, *Babylonian Boundary Stones*, 36, 49, *ilu Muš ilu sîru mar bîti ša âlu Di-e-ir*.

part of the ideogram for the city Susa.[1] Even in the late period Tishpak was known as the "dweller of Dîr."[2] There is, therefore, no longer any doubt but that the ancient cities of both Sumer and Accad were founded by Sumerians who migrated westward from the Elamitic region.

Colonel Lane's identification of Opis with the ruins opposite the present juncture of the river Adhaim with the Tigris is extremely important. He comes opportunely to the aid of those Assyriologists who find recent archæological and inscriptional evidence for the Sumerian occupation of Accad and Assyria, and for the indications of Sumerian migration from the Elamic side of the Tigris.[3] While stationed at Balad[4] he made minute examination of the entire region, as will be seen from the maps and the text. The principal scientific contribution of this book consists in new and dependable topographical information on the region between Samarra and Tell Abir. These new maps and the description of the region given in the text constitute the best topographical information which has ever been placed at the disposal of scholars. The book for this reason will never outlive its scientific value. He identifies ancient Opis with Abir, and corrects the location of the modern mound. It lay south of the Adhaim, and in antiquity it stood in the south-eastern angle formed by the juncture of the Adhaim with the Tigris. He claims to have proved the location of Nimrod's Dam and the point where the Median Wall, first constructed by Nebuchadnezzar, joined the Tigris. That famous military and irrigation centre he places

[1] The *gunu* of a sign in Sumerian means that strokes have been added to the original or "base sign" to indicate the superlative of the meaning conveyed by the "base sign." The ideogram for the city Susa is written either with the simple sign used for Innini or the *gunu* sign plus a sign known as ERIN.

[2] L. W. KING, *Babylonian Boundary Stones*, 7, 23. He is regarded as the husband of Isir (here Isir is the mother-goddess) in V. SCHEIL, *Delegation en Perse*, VI., 38, 4.

[3] The archæological evidence was discussed in my article, "Sumerian Origins and Racial Characteristics," *Archæologia*, 2nd Ser., Vol. 20, 145–154.

[4] Or *Beled*.

just north of Opis and below the modern village Kadisiyeh. He maintains (with Billerbeck) that the Gyndes of Herodotus is the Adhaim, and does not dispute, however, its ordinary identification with the classical Physcus.

Obviously, Tell Abir marks the ruins of an ancient city, and the description of it given in this book will certainly lead to excavations there. But the location of Opis at or near the mouth of the Adhaim is not new. In fact, there was a consensus of Assyriological opinion in this direction before Colonel Lane began to investigate the problem. It has been identified with Tel Manjūr, which the author visited, but Herzfeld's investigation of the same region proved that these ruins do not mark an ancient site.[1] A canal known as the "Royal Canal" (*nâr šarri*) left the Tigris at Opis and joined the Euphrates at Agade (a city near Sippar). Therefore Opis lay considerably north of the latitude of Sippar. This ancient canal appears first in the reign of Nazi-Maruttash (end of XIVth century B.C.). In a land survey a city Karû is said to be situated on the banks of the Royal Canal in the district of Opis, and the city Pilarû stood beside the same canal in the district of Bagdadi.[2]

Opis was beyond doubt the most important ancient city on the Tigris, and was founded by the Sumerians at least before 3500 B.C. Its original name appears to have been Akshak, for the transcription of the ideogram (by which its name was usually written) as *U-pi-e* does

[1] Herzfeld said that the ruins which commonly pass on the modern maps as *Manǧūr* south of *Beled* are neither important nor ancient. He also could not obtain local information even for the existence of the name, but Colonel Lane speaks of the word as a well-known name of these ruins. See STRECK in *Orientalistische Literaturzeitung*, 1913, p. 88; WINCKLER, *Altorientalische Forschungen*, II., 509–530; HOMMEL, *Grundriss der Geographie und Geschichte*, 345–347, falsely identified Opis with Seleucia south of Bagdad on the western bank of the Tigris. Opis is correctly located in KIEPERT'S *Atlas Antiquus*, Tab. IV.

[2] This name may be read *Ḫudadi*, and such is in fact the usual reading of those Assyriologists who do not recognise this name as the early original of the modern Bagdad. DELITZSCH, *Wo lag das Paradies?* 206, accepts the identification. STRECK, *Mitteilunger der Vorderasiatistischen Gesellschaft*, 1906, p. 227, under *Ḫudadu* will not commit himself. Scheil, who published the Boundary Stone of Nazimaruttash, *Délégation en Perse*, II., 87, n. 4, definitely rejects the reading Bagdadi.

not appear before the Cassite period. This statement will probably evoke criticism, and consequently a full statement concerning the history of this city, so far as it can be obtained from our present sources, must not be omitted as an introduction to Colonel Lane's topographical studies. Tell Abir, with which he identifies Opis or *Akšak*, lay in the region of the earliest Sumerian arrival. It became the seat of a Semitic dynasty about 3188 B.C., but another city in the same region, viz. Ḫamazi, which lay east of the Tigris in the latitude of Bagdad, became the capital of Sumer and Accad for the brief period of seven years as early as 3645 B.C. The entire region belonged to the old prehistoric Sumerian civilisation east of the Tigris before they settled in lower Mesopotamia. The ruins of Abir probably conceal the remnants of a civilisation of very great antiquity. The ideogram with which the name of Opis was first written is transcribed as UḪ by Assyriologists.[1] This sign with determinative *ki*, which indicates a place-name, is read in three different ways by the Babylonian grammarians. In the first place it is said to have been pronounced *Ki-e-ši*,[2] *Ki-e-si*,[3] *Ki-is-sa*,[4] and *Ki-sa*.[5] Secondly, an inscription of Nebuchadnezzar in one version has *UḪ(ki)*, and in another the variant *âlu Ak-ša-ak*.[6] That reading of the name contains an old Sumerian or Elamitic locative ending *ak*, which appears in many place-names in the Elamitic region: Ashnunnak, Kazurak, Nanak, Ḫarḫamunak, and Larak, a Sumerian city between Nippur and the Tigris.[7] It is extremely

[1] Its earliest form may be seen in THUREAU-DANGIN'S *Recherches sur l'Origine de l'Ecriture Cunéiforme*, No. 235, and its later form in BRÜNNOW'S *Classified List of Cuneiform Ideographs*, No. 8122.

[2] *Cuneiform Tablettes of the British Museum*, XVI., 36, 3.

[3] REISNER, *Sumerisch-Babylonische Hymnen*, No. 81, 2.

[4] Variant on K. 4622.

[5] LANGDON, *Babylonian Liturgies*, 72, 14.

[6] Cf. LANGDON, *Neubabylonische Königsinschriften*, 154, 53, with Unger and Weisbach in *Zeitschrift für Assyriologie*, XXIX., 182, l. 8. See also SCHIEL, in *Revue d'Assyriologie*, XIV., 160.

[7] Also in the ancient Sumerian city Šuruppak. Other names, from the region east of the Tigris, are Zimanak, Amaštiak. It occurs also in divine names (of Elamitic gods), Tišpak, Apirak, Gurumutak, Marzak, Šušinak, Dagbak. LANDSBERGER, *ibid.*,

probable that *Akšak* was the most common name of this great northern centre of Sumerian culture. So sacred was the word that it often formed an element in personal names. Thus in the time of Hammurabi, the names *UḪ(ki)-idinnam* and Ak-ša-ak-idinnam occur, which proves that the place was then known as Akshak. This name means "Akshak has given," where the city takes the place of a divine name. *UḪ(ki)-šemi*, "Oh, Akshak, hear," *UḪ(ki)-rabi*, "Akshak is mighty," Ri-bi-UḪ, "My revenge is Akshak," are examples of names of men in this period. Moreover, the names *UḪ(ki)-ia* and *Ak-ša-a-ia* are found, which again establishes the pronunciation of the name of this city.[1]

Finally, in the Cassite period the city *u-pi-e(ki)* begins to occur with great frequency. "The district of the reed marsh of the city *U-pi-i*" occurs in a royal deed of Nebuchadnezzar I.[2] A royal deed of Nazi-maruttash, cited above, mentions the administrative district of the city *U-pi-i*. Tiglathpileser I. (beginning of XIth century) conquered Babylonia, and the *Synchronous History* says *ālu U-pi-e* was then one of its great cities.[3] Professor Johnston[4] discussed a letter written by the governor of Assur to Sargon, king of Assyria, in which the city *U-pi-a* is twice mentioned. He says that the ship of the governor of Arrapachitis was in service as a ferry-boat at Opis. The name *Upî*, *Upia*, *Upie*, which is always spelt phonetically by the Babylonian scribes of the Cassite period, and by Assyrian scribes of all periods, would not have been identified with the older *Akšak* were it not for the fact that the old ideograph *UḪ(ki)* reappears in the Neo-Babylonian period beside *U-pi-ia*,[5] and an omen text contains the

cites also Šarlak king of Gutium in the time of Šargališarri, and concludes that the ending *ak* may belong to some early "north Tigris" dialect or may be Gutean.

[1] See LANDSBERGER, *Orientalistische Literaturzeitung*, 1916, p. 35.

[2] KING, *Boundary Stones*, p. 97.

[3] *Cuneiform Tablets*, Vol. 34, p. 39, 20.

[4] In his dissertation, "The Epistolary Literature of the Assyrians and Babylonians," No. 18.

[5] See *Vorderasiatische Schriftdenkmäler*, VI., 285, 5, "the sailor at *U-pi-ia*," and l. 16; but 286, 6, *UḪ(ki)*.

curious prediction, "if a man (dreams) that he went to *UḪ-ki* his cattle-stall will be scattered."[1] In this tablet the scribe adds a gloss on the ideograph *UḪ(ki)* which reads *u-pi-e*. Consequently this old sign, originally read *Akšak*, was read *Upê* at least from the XIVth century onward.

There is not the slightest doubt but that Opis is the ancient Akshak whose history is more or less traceable from the days of Enshagkushanna, founder of the second dynasty of Erech about 3488 B.C.[2] The reading *Kêši*, *Kêsi*, *Kissa*, noted above, probably arose from a scribe's error; he confused the ideograph of Akshak and Opis with a similar ideograph for an ancient city *Kêsh* at or near Erech.[3] At Akshak or Opis the god Nergal, lord of the lower world, was worshipped. The god of Opis has the title *IGI-DU*, and the goddess of Opis is known only by her Semitic title *Kallat ekurrî*, "Bride of the earth."[4] This deity (*IGI-DU*) is classed among Elamitic titles of the war-god Ninurashâ by the scribes,[5] but an omen text has a gloss which identifies this god with the god of the lower world, Meslamtaèa.[6] A contract found at Sippar, dated in the second year of Neriglissar,[7] but written at Opis, contains two proper names, *ilu IGI-DU-ab-usur*, "O god IGI-DU, protect the father," and *ilu IGI-DU-šar-uzur*, "O god IGI-DU, protect the king."

Therefore, Akshak or Opis is proven to have possessed a cult of the god of the lower world, and a cult whose origin is as ancient as the prehistoric Elamitic period of Sumerian history.[8] The temple of Opis was named

[1] ALFRED BOISSIER, *Choix de Textes*, II., 33.

[2] See ARNO PŒBEL, *Historical Texts*, p. 151.

[3] Note that the goddess Innini of Kullab is identical with *šarrat Kêš(ki)*; see RAWLINSON, *Inscriptions of Western Asia*, II., 60*a*, 26.

[4] *Vorderasiatische Schriftdenkmäler*, VI., 213, 21; and see Ungnad's article, "Zur Lage von Upî-Opis," *Zeitschrift der Deutschen Morgenländischen Gesellschaft*, Vol. 67, 133–135.

[5] See FRANK, *Zeitschrift für Assyriologie*, Vol. 28, 326.

[6] BOISSIER, *Documents Assyriens*, 238, 10. Also EBELING, *Religiöse Keilschrift-texte aus Assur*, 132, II., 11, connects the god *IGI-DU* with Meslamtaèa. See also *ibid.*, 88, Fragment 4, l. 9, *IGI-DU* with Ninazu, an under-world deity.

[7] RAWLINSON, *Inscriptions of Western Asia*, V., 67, No. 3.

[8] LANDSBERGER, *Orientalistische Literatur-zeitung*, 1916, 35, n. 1,

Anzakar.[1] Shargalisharri defeated a great Elamitic invasion "in the plain before Akshak and Saklu" in the XXVIIIth century B.C.,[2] and the locality was obviously the military key to Accad, for it was the scene of later decisive battles which are discussed in this book. Eannatum, a king of the Sumerian city Lagash, in the extreme south, came into conflict with Akshak as early as the XXXIst century B.C. Zuzu its king was pressed northward from the region of Accad, and Eannatum took possession of Kish.[3]

Such was the long history of this famous city on the central course of the Tigris. The principal difficulty in locating it at the mouth of the Adhaim has been the inscription of Nebuchadnezzar, discussed on p. 136. I believe that the explanation of that text communicated to Colonel Lane by the writer will remove the objections of scholars. Long before the author's endeavours to clear up the situation, John Ross and Lieut. H. Blosse Lynch located Opis at the same place. Ross published minute details of the entire region in his article, "A Journey from Bagdad to the Ruins of Opis, the Median Wall," *Journal of the Royal Geographical Society* (1841), Vol. IX., 121–136 and 443–470. Lynch's remarkable article is entitled, "Note on a Part of the River Tigris between Bagdad and Samarrah," *ibid.*, pp. 471–476.[4] The map which accompanies Lieut. Lynch's article is the best and most useful which has ever been made

denies this character of the cult of Opis, and adduces a proper name of the Hammurabi period, *dⁿSin(?)-šar-Akšak*, to prove that the moon-god was worshipped here. But it should be remembered that the god Akshak was of Elamitic origin, and the Sumerians were doubtful concerning the god with whom they should identify him. A letter written at Erech in the Greek period has the greeting, "May Sin and IGI-DU peace and happiness of my father command," KEISER, *Letters and Contracts*, 87, 3–4.

[1] *Proceedings of the Society of Biblical Literature*, 1918, 82, 37; PŒBEL, *Historical and Grammatical Texts*, 157, l. 8.

[2] THUREAU-DANGIN, *Die Sumerischischen und Akkadischen Königsinschriften*, 225*a*.

[3] THUREAU-DANGIN, *ibid.*, p. 20.

[4] See also James Felix Jones' *Memoires*, in Bombay Government Records, 1857, a standard work on the topography of the lower Tigris.

before the ordnance map of the British government of Iraq. About twenty years ago two German scholars published a book in four quarto volumes, *Archäologische Reise in Euphrat und Tigris-Gebiet*, by Fr. Sarre and Ernest Herzfeld. The description of the region south of Samarra in Vol. I., pp. 60 ff., of this great work is good but not minute, and no special map of that region is given. They followed the old bed of the Tigris as far south as thirty kilometres above Bagdad, where it disappears. They give, however, the modern Arabic name of this old Tigris bed as *Shuṭait*, "the little shaṭṭ," shaṭṭ being the coloquial name of the Tigris. The well-known historian Eduard Meyer made a long study of the Cuneiform and Greek sources in his article, "Die Lage von Opis, die Verteidigungsanlagen Nebuchadnezzars," [1] in the *Sitzungsberichte der Königlichen Preussischen Akadamie*, 1912, pp. 1096–1108. That learned author was deterred by the Nebuchadnezzar inscription from identifying Opis with Tell Abir, and he came to no decision.[2]

The history of the topographical study of the central Tigris was begun by British officers and carried on by them; and here it is finished by one of them. Colonel Lane could not make use of the scholarly German works on this subject. His investigations are independently made, and he modestly claims to be only a military man who, having served his country in the army, now serves her also in his retirement. His military training places him in a position of peculiar advantage with regard to the location of Opis and the historical dramas enacted there in the long course of Babylonian history.

OXFORD,
February 3, 1923.

[1] "The Location of Opis, the Defensive Works of Nebuchadnezzar."

[2] See also BILLERBECK, "Geographische Untersuchungen," *Mitteilungen der Vorderasiatistischen Gesellschaft*, 1908, No. 2.

BABYLONIAN PROBLEMS

CHAPTER I

THE SITE OF OPIS

MANY Babylonian problems hinge on the correct determination of the site of Opis; it is therefore of considerable geographical, historical, and archæological importance that the identity of this ancient city should be definitely established.

In our attempt to fix precisely the location of Opis, the first step will be to review the various sites of Opis as pronounced by different authorities, and in this connection it would be preferable primarily to specify the period of history in which Opis flourished.

The first mention of Opis is in an inscription of the age of Enshagkushanna, founder of the second dynasty of Erech, *circa* 3488 B.C., where one of these early Sumerian Kings of Erech is said to have conquered the King of Opis and the King of Kish.

Opis is mentioned in an inscription of Eannatum, King of Lagash, who reigned in 2900 B.C. In this inscription, Eannatum relates how he pursued and defeated Zuzu, King of Opis. From these statements we may therefore deduce the fact that Opis was the capital of a kingdom more than 5000 years ago. Strabo, writing in 24 B.C., makes several references to Opis. If the former date, then, 3488, is authentic, we know that Opis throve as a city for at least 3500 years.

Professor Langdon has very kindly volunteered the information that the ancient name of the Greek Opis and Babylonian Upê was Akšak, and that this latter name was displaced by Upê during the Kassite

period. Now, the author is not aware of the reason assigned for this change of nomenclature; whether any authentic cause has been recorded in the cuneiform inscriptions is likewise unknown to the writer. It is within the bounds of possibility, however, that the change of name was brought about by a change of site, which in itself may have been occasioned by an alteration in the bed of the river Tigris. It cannot therefore be accepted as an actual fact that if we succeed in identifying the Greek Opis and the Babylonian Upê we also have located the site of the ancient city of Akšak. The author has not been in a position to assemble any references, topographical or otherwise, which might furnish the remotest clue pointing to the location of Akšak, so that any attempt to determine the site of Akšak must be abandoned *ab initio*.

Let us, then, study the notices regarding Upê and Opis, which are scattered through the Babylonian inscriptions, and also the writings of the Greek and Roman historians.

The first topographical reference of material significance is contained in the Senacherib Bull Inscription, No. 2, 694 or 693 B.C., from which the following extract is taken :—

"Men of the Hittite land, the conquest of my bow, I caused to dwell in Nineveh. Mighty ships the work of their land they built skilfully. Sailors of Tyre and Sidon and from the land of the Ionians, the conquest of my hands—I caused them to receive orders. In the Tigris they descended on dry land to Opis, with them laboriously. From Opis by land they transported them and on rollers (?) they drew them as far as (the city ? . . .) In the Araḫtu canal they placed them." [1]

Nebuchadnezzar II., 605 to 562 B.C., furnishes the next link in the chain of topographical evidence. That great monarch hands down to posterity the record that—

[1] Appendix 1.

"Above Opis to the middle of Sippar, from the bank of the Tigris to the bank of the Euphrates, 5 beru, a huge embankment of earth I heaped up and many waters, as the flood of the sea, I put about the city at a distance of 20 beru. In order that by the inundation of the many waters, the embankment of earth might not be damaged, with mortar and brick I fixed it within." [1]

The next prominent landmark in the history of Opis, 555 to 538 B.C., is contained in the Cyrus Nabuna'id Chronicle, where it is reported that—

"In the month Tammuz, when Cyrus at Upê on the bank of the Idiglat (Tigris) did battle with the army of Akkad he conquered the inhabitants of Akkad;" [2]

Then in 401 B.C., during the historical retreat of the Ten Thousand Greeks after the decisive battle of Cunaxa, Opis is mentioned again by Xenophon, who relates that after passing Sittace—

"From the Tigris they made, in four days' march, twenty parasangs, and came to the river Physcus, one hundred feet in breadth, having a bridge over it. Here stood a large and populous city called Opis."

Three-quarters of a century later, in 325 B.C., we still find that Opis stands as a flourishing city. Arrian tells us that—

"Alexander first sailed down the river Eulaeus to the sea, and thence along the Persian Gulf, and up the Tigris to his camp, where Hephaestion, with the forces under his command, waited his arrival. Thence steering his course to Opis, a city on that river, he commanded all the weirs and other impediments which he met with, to be pulled up, and the channels to be cleared." [3]

Strabo, writing in 24 B.C., furnishes us with another topographical clue of some importance. He quotes Eratosthenes as saying that—

[1] Appendix 2, Inscrip. XIX., B. col. 6, lines 68–76.
[2] Appendix 4.
[3] Appendix 14, Bk. VII., ch. 7.

"the Euphrates, after becoming ever nearer to the Tigris in the neighbourhood of the wall of Semiramis and a village called Opis, and after flowing through Babylon empties into the Persian Gulf." [1]

Also, in describing the course of the Tigris, this historian narrates that—

"After pursuing a long course underground, it reappears in the Chalonitis; thence it goes to Opis, and to the Wall of Semiramis, as it is called, leaving Gordyaei and the whole of Mesopotamia on the right hand." [2]

Again, Strabo, in his description of Assyria, tells us that—

"the country is intersected by many rivers, the largest of which are the Euphrates and Tigris. . . . The Tigris is navigable upwards from its mouth to Opis. Opis is a village and a mart for the surrounding places." [3]

The next historian from whom we might expect a mention of Opis is Pliny, but his works contain no direct reference to the existence of this town. Now, such an omission can hardly be accepted as a coincidence, or in the nature of a lapse of memory, taking into consideration the fact that he records the names, perhaps, of more ancient cities than any other of his fellow-chroniclers. Is it not conceivable, then, that one of the cities, with Greek titles, as described by Pliny, is in reality Opis? L'Emprière, in his classical dictionary, has the following notice regarding Opis:—

"A city on the Tigris afterwards called Antiochia."

Now, this statement forms a very definite assertion. *If* we could rely on L'Emprière's declaration as founded on actual fact, and provided that we could identify without challenge the site of Antiochia, then we should

[1] Appendix 9, Bk. II., ch. 1, 26.
[2] *Ibid.*, Bk. XI., ch. 14, 8.
[3] *Ibid.*, Bk. XVI., ch. 1, 9.

be in a position to point to a certain group of mounds and tell the archæologist that he could commence work with his pick and spade. Unfortunately, however, neither during the course of his own work, nor by enlisting the aid of eminent scholars, has the author been able to substantiate in any degree the authenticity of this observation. On the other hand, this postulation over the name of L'Emprière may, by chance, prove to be accurate; furthermore, if we can determine satisfactorily the locations of the other cities mentioned by Pliny and the ancient historians, then, by a process of elimination, we may arrive at a presumption sufficiently acceptable, from a topographical standpoint, to warrant a comparison with the notices furnished by early authorities. It will therefore not be out of place if we quote at this juncture the details of the positioning of Antiochia as recorded by Pliny. Speaking of Mesopotamia, this chronicler relates that—

"The whole of Mesopotamia formerly belonged to the Assyrians, being covered with nothing but villages, with the exception of Babylonia and Ninus. The Macedonians formed these communities into cities, being prompted thereto by the extraordinary fertility of the soil. Besides the cities already mentioned it contains those of Seleucia, Laodicea, Artemita; and in Arabia the peoples known as the Orei and the Mardani, besides Antiochia founded by Nicanor the Governor of Mesopotamia, and called Arabis." [1]

In another passage Pliny is more explicit in the details regarding the location of Antiochia Arabis. We read that—

"Between these peoples and Mesene is Sittacene, which is also called Arbelitis and Palæstine. Its city of Sittace is of Greek origin; this and Sabdata lie to the east, and to the west is Antiochia, between the two rivers

[1] Appendix 13, Bk. VI., ch. 30.

Tigris and Tornadotus, as also Apamea, to which Antiochus gave this name being that of his mother." [1]

Lastly, our survey takes us to the study of the writings of Herodotus, 430 B.C. Narrating the events of the expedition of Cyrus against Babylon, Herodotus gives us the following account :—

" Cyrus on his way to Babylon came to the banks of the Gyndes, a stream which, rising in the Matienian mountains, runs through the country of the Dardanians, and empties itself into the river Tigris. The Tigris, after receiving the Gyndes, flows on by the city of Opis, and discharges its waters into the Erythræan Sea. When Cyrus reached this stream, which could only be passed in boats, one of the sacred white horses accompanying his march, full of spirit and mettle, walked into the water, and tried to cross by himself; but the current seized him and swept him along with it, and drowned him in its depths." [2]

Now, as regards the identity of the Gyndes, Herodotus in another passage furnishes us with information of a wholly precise nature. In describing the Royal Road from Sardis to Susa he specifies that—

" In Armenia the resting places are 15 in number, and the distance is 56½ parasangs. . . . Four large streams intersect this district, all of which have to be crossed by means of boats. The first of these is the Tigris; the second and the third have both of them the same name, though they are not only different rivers, but do not even run from the same place. For the one which I have called the first of the two has its source in Armenia, while the other flows afterwards out of the country of the Matienians. The fourth of the streams is called the Gyndes, and this is the river which Cyrus dispersed by digging for it three hundred and sixty channels." [3]

Now, in this narrative a definite fact is stated in a manner that allows of one interpretation only. The

[1] Appendix 13, Bk. VI., ch. 81.
[2] Appendix 5, Bk. I., ch. 189.
[3] *Ibid.*, Bk. V., ch. 52.

first river is the Tigris, the second and third rivers bear the same name, and are evidently the two Zabs, and the fourth river is the Gyndes. A single glance at the inset to Map 1 will demonstrate beyond any possibility of challenge that the fourth river is the Adhaim. Therefore it follows that, as the Tigris after receiving the Gyndes flowed on past Opis, Opis *must* have been situated in the vicinity of the confluence of the Tigris and Adhaim rivers. In spite of this rigid statement of fact, one school of scientists still persists in the belief that the Gyndes is represented by the modern Diyala River, and that in consequence the site of Opis should be found in the neighbourhood of the confluence of the Tigris and Diyala rivers. The question arises—how did this theory obtain credence from its very start? It would appear that this case is a typical one in which a commentator originates an entirely erroneous deduction, which is accepted without any sort of investigation by subsequent modern writers, and, what is still more disastrous to clear reasoning, placed before the reading public as an incontrovertible fact. Can we trace this error back to its inception? Let us make an attempt.

Herodotus relates in two separate passages that the Gyndes has to be crossed in boats. In commenting on this assertion made by Herodotus, Rawlinson affirms in a footnote that—

"The Gyndes is undoubtedly the Diyala, since—firstly, there is no other *navigable* stream after the lower Zab on the road between Sardis and Susa; secondly, no other river of any consequence could have to be crossed between the mountains and the Tigris on the march from Agbatana to Babylon." [1]

Now, the first reason is based on the supposition that because a river has to be crossed in boats, it must be of sufficient size to be navigable.

The author had the great pleasure of meeting

[1] Appendix 5, footnote 2.

Professor A. T. Clay, of Yale University, in Mesopotamia. This scientist had procured some cylinder seals of the Kassite-Hittite period, which were obtained at Kirkuk, and he asked the present writer, who was then stationed with his regiment at that place, to ascertain whether any traces of an ancient city wall were discernible on the actual ground. The results of this topographical search are shown on Diagram No. 1. It will be seen that traces of an ancient dam exist in continuation of what must have been the alignment of the northern face of the outer city wall. This barrage would have had the effect of creating a broad basin, by way of defence, in the bed of the Gyndes, just above Kirkuk, and, as the road from Sardis to Susa crossed the Gyndes at this spot, the only possible method of effecting the passage would have been by the use of boats.

But we can still produce further evidence which will tend to substantiate our claim that the Gyndes coincides with the present Adhaim river.

Ammianus, in describing the district of Adiabene, specifies that—

"Within this circuit is Adiabene, which was formerly called Assyria, but by long custom has received its present name from the circumstance that, being placed between the two navigable rivers the Ona and the Tigris, it can never be approached by fording; for in Greek we use διαβαίνειν for 'to cross': this was the belief of the ancients." [1]

The problem, therefore, reduces itself to fixing the correct identification of the river Ona.

The fact cannot be gainsaid that the Ona must represent either the Diyala River or the Adhaim. Now, if we accept the Ona as being the ancient Adhaim, then Rawlinson's argument that the Gyndes is undoubtedly the same as the Diyala River because it is the only

[1] Appendix 15, Bk. XXIII., ch. 6, 20.

navigable river after the Lesser Zab on the road between Sardis and Susa, is once again refuted. Unbelieving

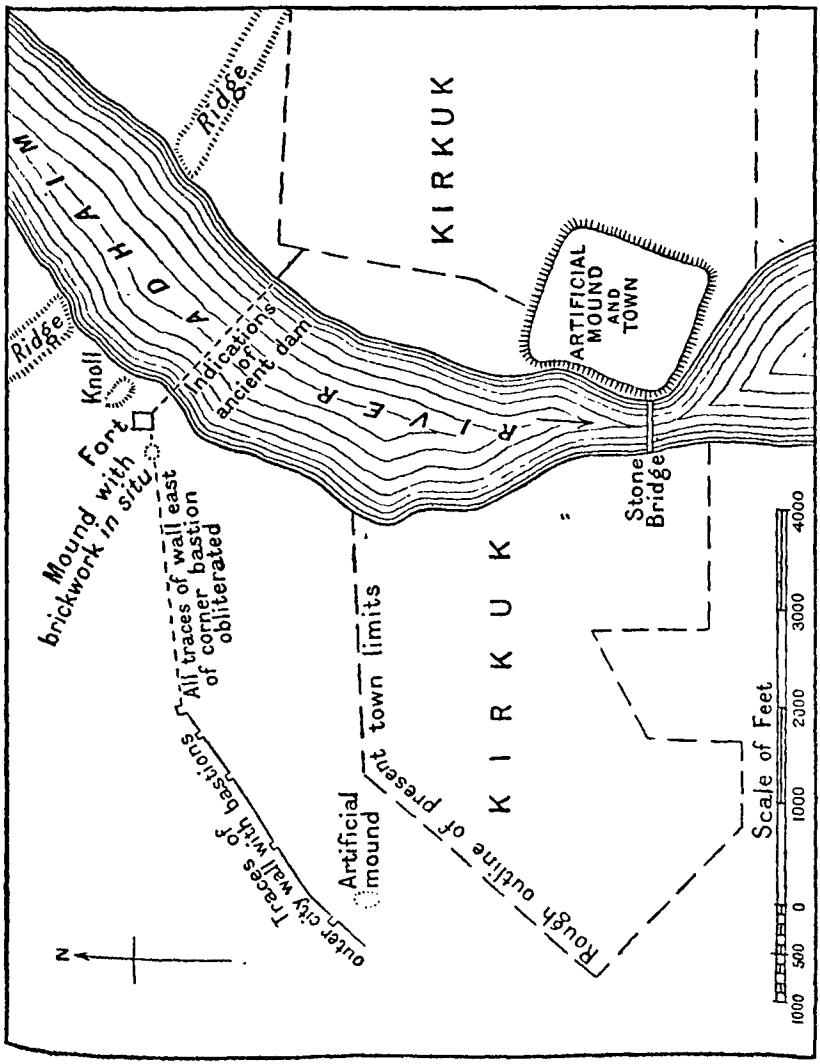


DIAGRAM No. 1.

critics, however, may still aver that the Ona and the Gyndes can be taken as different names for the same river; but such a contention is hardly tenable, for in

mentioning the rivers of Media, Ammianus records that the principal rivers of Media are the Choaspes, the Gyndes, the Armadus, the Charinda, the Cambyses, and the Cyrus.[1] No reference is made in this passage to the Ona. Why? Surely because the Ona had already been alluded to in conjunction with the Greater and Lesser Zabs, as the two rivers Diabas and Adiabas, which never fail, and both of which have bridges of boats over them.[2]

There is yet one other notice which corroborates the postulation that the Gyndes is identical with the Adhaim River and not the Diyala.

Ammianus narrates that—

"in this district of Adiabene is the city of Nineveh, and also the cities of Ecbatana, Arbela, and Gaugamela."

Now, it is a self-evident proposition that if Ecbatana is situated within the confines of Adiabene, then the river Ona, which forms its eastern boundary, cannot possibly be the same as the Adhaim, for in that case Ecbatana would be well beyond its frontier; whereas by accepting the Ona as being coincident with the Diyala River, Ecbatana *would* be situated within the marches of Adiabene.

The first part of Rawlinson's argument, therefore, falls to pieces, and the positive declaration that the Gyndes is undoubtedly the Diyala is in consequence rendered wholly untenable. Furthermore, as a result of the collapse of this deduction, the contention by the one set of scientists, that Opis should be sought for in the vicinity of the confluence of the Diyala and Tigris, must be acknowledged as invalid. However, it is always an unsound policy to rely on one piece of evidence if further proof is forthcoming; let us therefore review the details of positioning as gathered from the reports of the ancient historians.

[1] Appendix 15, Bk. XXIII., ch. 6, 40. [2] *Ibid.* 20.

First of all, Senacherib tells us that Opis lay on the Tigris, and Nebuchadnezzar also confirms this statement, and adds that he built a wall from the bank of the Tigris, above Opis, to Sippar. Then the Cyrus Nabuna'id Chronicle places Upê on the bank of the Idiglat (Tigris). Xenophon locates it on the Physcus, and Arrian denotes its position as being on the Tigris. Both Eratosthenes and Strabo connect Opis with the Wall of Semiramis, and the latter writer also states that it is situated on the Tigris. Herodotus records that the Tigris, after receiving the Gyndes, flows on by Opis ; and, lastly, Pliny represents Antiochia Arabis, which is supposed to coincide with Opis, as lying between the two rivers Tigris and Tornadotus.

Now, of all these reports, that recorded by Nebuchadnezzar would seem to offer the most reliable guide to the position of Opis. If we can identify positively the actual location of the eastern extremity of his Opis-Sippar Wall, then we should be able to place within a very few miles the correct situation of the ancient city of Opis.

CHAPTER II

THE SITE OF OPIS (*continued*)

HAVE we any indications of a wall, extending from the Tigris, which might answer to the description of Nebuchadnezzar's outer rampart, together with that brought to notice both by Eratosthenes and Strabo? Most certainly such is the case. At the present day there stands an ancient wall situated fifteen miles south-east of Samarrah, which is cut through by the Baghdad-Shergat railway line near its north-eastern extremity. It is marked on our survey maps as the Median Wall, but opinions differ regarding the accuracy of this contention. It was with the object of elucidating this problem, together with other kindred subjects, that the author undertook a detailed examination of the terrain between Sumaichah and Samarrah. The reader would do well, at this juncture, to study carefully both the maps of this area which accompany the book. The results of this exploration, if such a term be appropriate, far exceeded the highest expectations of the writer when he set out on his mission.

Now, to gain a clear conception of the principles involved as depicted on Map 1, it will be of material assistance if we can examine a parallel case. Nebuchadnezzar II. foresaw the growing menace of the destruction of the Neo-Babylonian Empire at the hands of the Medes, and he prepared his defensive scheme to meet this peril. Lower Egypt was similarly faced by the threat of

extinction through its northern neighbour. If, then, we can study the broad outlines of the key to Lower Egypt, we should be in a position to apply our knowledge to that of Babylonia.

The following extracts are taken from Sir William Willcocks' volume *From the Garden of Eden to the Crossing of the Jordan.* There are many passages in this work to which the present writer cannot subscribe, but in this particular excerpt Sir William Willcocks has given us the clue to the solution of a chain of conundrums that have been puzzling scientists and geographers for over a century, although he himself has not, either in this volume or in his other work—*The Irrigation of Mesopotamia*—availed himself fully of that clue.

We read—

"92. Towards the closing years of the Hyksos, the native Kings of Upper Egypt were gradually winning their independence of the foreign rulers of Lower Egypt, and there was an unending war between the two crowns. At this particular time the King of Upper Egypt was steadily gaining the mastery and planning the naval attacks on Ha-Uar, the key of Lower Egypt, of which inscriptions in the rock-tombs of El Kab give such vivid accounts.

"93. The key of Lower Egypt was the Ha-Uar dam across the canal connecting the Nile with the lake of Moeris, and controlling the river. The whole of Egypt at that time was under basin irrigation, and depending for its life on the level of water in the river being maintained at a sufficient height to enter the canals.

"95. The connection between the Nile and the future Lake Moeris was in existence in King Menes' time, but it was King Amenemhat of the twelfth dynasty who widened and deepened the canal, cleared away the rocky barriers, and converted the lake of Menes' time into the mighty inland sea which controlled the highest floods of the Nile. Those ancient Pharaohs were giants in hydraulic engineering. They were, moreover, as wise as they were courageous."

Herodotus, writing about 430 B.C., was the first to describe the lake and the Labyrinth.

Book II., chap. 147 : "In what follows I have the authority, not of the Egyptians only, but of others also who agree with them. I shall speak likewise in part from my own observation. When the Egyptians regained their liberty after the reign of the priest of Vulcan, unable to continue any while without a king, they divided Egypt into twelve districts, and set twelve kings over them. These twelve kings, united together by intermarriages, ruled Egypt in peace, having entered into engagements with one another not to depose any of their number, nor to aim at any aggrandisement of one above the rest, but to dwell together in perfect amity.

"148. To bind themselves yet more closely together it seemed good to them to leave a common monument. In pursuance of this resolution they made the Labyrinth which lies a little above Lake Moeris, in the neighbourhood of the place called the City of Crocodiles. I visited this place, and found it to surpass description ; for if all the walls and other great works of the Greeks could be put together in one, they would not equal, either for labour or expense, this Labyrinth ; and yet the temple of Ephesus is a building worthy of note, and so is the temple of Samos. The pyramids likewise surpass description, and are severally equal to a number of the greatest works of the Greeks, but the Labyrinth surpasses the pyramids. It has twelve courts, all of them roofed, with gates exactly opposite one another, six looking to the north, and six to the south. A single wall surrounds the entire building. There are two different sorts of chambers throughout—half under ground, half above ground, the latter built upon the former ; the whole number of these chambers is three thousand, fifteen hundred of each kind. The upper chambers I myself passed through and saw, and what I say concerning them is from my own observation ; of the underground chambers I can only speak from report : for the keepers of the building could not be got to show them, since they contained (as they said) the sepulchres of the kings who

built the Labyrinth, and also of the sacred crocodiles. Thus it is from hearsay only that I can speak of the lower chambers. The upper chambers, however, I saw with my own eyes, and found them to excel all other human productions; for the passages through the houses, and the varied windings of the paths across the courts, excited in me infinite admiration, as I passed from the courts into chambers, and from the chambers into colonnades, and from the colonnades into fresh houses, and again from these into courts unseen before. The roof was throughout of stone, like the walls; and the walls were carved all over with figures; every court was surrounded with a colonnade, which was built of white stones, exquisitely fitted together. At the corner of the Labyrinth stands a pyramid, forty fathoms high, with large figures engraved on it; which is entered by a subterranean passage.

"149. Wonderful as is the Labyrinth, the work called the Lake of Moeris, which is close by the Labyrinth, is yet more astonishing. The measure of its circumference is sixty schoenes, or three thousand six hundred furlongs, which is equal to the entire length of Egypt along the sea-coast. The lake stretches in its longest direction from north to south, and in its deepest parts is of the depth of fifty fathoms. It is manifestly an artificial excavation, for nearly in the centre there stand two, pyramids, rising to the height of fifty fathoms above the surface of the water, and extending as far beneath, crowned each of them with a colossal statue sitting upon a throne. Thus these pyramids are one hundred fathoms high, which is exactly a furlong (stadium) of six hundred feet: the fathom being six feet in length, or four cubits, which is the same thing, since a cubit measures six, and a foot four, palms. The water of the lake does not come out of the ground, which is here excessively dry, but is introduced by a canal from the Nile. The current sets for six months into the lake from the river, and for the next six months into the river from the lake. While it runs outward it returns a talent of silver daily to the royal treasury from the fish that are taken, but when the current is the other way the return sinks to one-third of that sum."

Strabo, writing in 24 B.C., narrates—

"It has also a remarkable lake, called the lake of Moeris, large enough to be called a sea, and resembling the open sea in colour.

"Thus the lake of Moeris is from its size and depth capable of receiving the overflow of the Nile at its rising, and preventing the flooding of houses and gardens; when the river falls, the lake again discharges the water by a canal at both mouths, and it is available for irrigation. There are regulators at both ends for controlling the inflow and outflow."

Mr. H. R. Hall, M.A., F.S.A., in his volume *The Ancient History of the Near East*, has the following notice:—

"Amenemhat III.'s great work was, besides the construction of a dyke at Illahun, regulating the outflow from Lake Moeris, the reclamation by means of a great curved embankment of, according to Prof. Petrie's estimate, about forty square miles of fertile territory to the north and east of Shedit. On the dam, at a point directly north of Shedit, the king placed, as a memorial of the work, two colossal statues of himself, each thirty-nine feet high, and each cut from a single block of white quartzite. These were mounted on a platform, and must have been seen far and wide across the lake; the effect of the sun's rays reflected from the glittering quartzite must have been remarkable." [1]

Diodorus Siculus, writing about the same time as Strabo, relates—

"King Moeris dug a lake which is amazingly useful and incredibly large, for as the rising of the Nile is irregular, and the fertility of the country depends on its uniformity, he dug the lake for the reception of the superfluous water, and he constructed a canal from the river to the lake 80 furlongs in length and 300 feet in

[1] These colossi were seen by Herodotus, who describes them (II. 149). He speaks of them inaccurately (probably from lapse of memory), as standing in the middle of the lake.

breadth. Through this he admitted or let out the water as required."

Sir William Willcocks goes on to say—

"103. Sir Hanbury Brown has described the action of the lake, and reference can be made to his *Fayoum and Lake Moeris*. It had a surface of 1700 million of square metres, a capacity of some 50,000 million cubic metres, and, being drained back into the Nile and kept at a low level, it was able to take from a flood 13,000 million cubic metres of water, and 3000 million of cubic metres extra for every year it was not used. It was capable of reducing a very high flood to one of moderate dimensions; and, if injudiciously or maliciously opened in an ordinary flood, it was capable of depriving a great part of Lower Egypt of any basin irrigation at all, for such irrigation utilised only the surface waters of the Nile flood.

"104. As, during the troublous times we are describing, the king of Lower Egypt dared not cut the bank in times of high flood lest he should be interfered with in his effort to close it after the flood, the lake, by its evaporation of 2·50 metres per annum in depth, must have fallen very low. In consequence of this, during the first year following the cutting of the bank by the Pharaoh of Upper Egypt, the Nile must have poured into the lake an enormous volume of water. The resulting famine must indeed have waxed sore in the land.

"105. I have often said that Mr. Cope Whitehouse was right when he insisted that the Ha-Uar of the Hyksos was the modern Hawara, where stands the pyramid of the Labyrinth, and where were the Labyrinth and the two great regulating dams of entry and exit for the lake of Moeris. The two regulators were two earthen dams parallel to each other, closing the depression which connected the Nile with Lake Moeris. In those days the Nile flowed in two channels opposite the head of the Lake Moeris canal, and enclosed the Island Nome of antiquity. This formation was imposed on it by the draw of Lake Moeris in high floods. The Bahr Yusuf of to-day at Lahoun was in those days either the main branch of the Nile as it was in King Menes' time, or of such importance that the cutting of the two dams at

Hawara Eglan and Hawara el Makta took off so much water that the Nile was controlled. Indeed, the abandonment of Lake Moeris 1500 years after Joseph's time may have been primarily due to the fact that the Lahoun branch of the Nile gradually dwindled in size owing to the less frequent use of the escape as the Lower Egypt banks and canals became established, and eventually the branch became so small that the escape could no longer control the Nile. The escape was changed into the Fayoum Bahr Yusuf Canal of our time, and the area inundated by Lake Moeris became the province of the Fayoum, as it is to-day.

" 106. The upper regulator was the existing Lahoun bank, with a pyramid at its northern extremity; on this bank to-day stand the villages of Hawara Eglan and Lahoun (*Lo Hunt*, 'the dam'). The other was a broad spill channel, cut out of the living rock to a suitable level for passing ordinary floods, where the Fayoum Bahr Yusuf is to-day, and in continuation of it a massive earthen dam across the head of the El Bats ravine, which was cut in dangerously high floods. On the line of this second dam is the existing village of Hawara el Makta, 'Ha-Uar of the breach'; the Hawara pyramid, or pyramid of Ha-Uar, stands at its northern extremity. Between the pyramid and the great dam was the Labyrinth (*Lapero-hunt*, 'the temple of dam'), in all probability a maze of outworks and barracks, temples and palaces, so arranged that no one from the mainland could approach the dam. The other end of the great dam was Hawara el Makta, or 'Ha-Uar of the breach,' which was practically a fortified island surrounded by water. The two dams were six miles apart, and to gain possession of the lower great dam a fleet was essential. The cutting of the dam was easy enough: its reconstruction after the passing of the flood entailed an expense of labour which even an Egyptian Pharaoh considered excessive.

" 107. This Ha-Uar was the true key of Lower Egypt; especially was this so in the time of the Hyksos, when Upper and Lower Egypt were at war with each other. Archæologists who, in their studies, forget the fact that 'the Egyptian question is the irrigation question' (as

the late Nubar Pasha always insisted), place the key of Lower Egypt in the time of the Hyksos near the Serbonian bog to the south of Port Said. . . . In all irrigated countries the key is the source of supply of water, and not the tail of the outlet. Mohamed Ali Pasha, the first viceroy of Egypt, used to say: 'Give me regulators at the heads of the canals and I am master of Egypt.' Not only in Egypt, but in Babylonia, the true solution of a question is often uncertain until the irrigation side of the problem has been consulted."

Now, here we have, as the key to Lower Egypt, a dam regulating the floods of the Nile, and defended by a work of great size and strength in the shape of the Labyrinth. In what form, then, should we expect to find the key to Upper Babylonia? Surely the key would have comprised a dam controlling the flow of the Tigris, and defended by fortifications of an impregnable nature? Next, if such a dam had ever been constructed, in what particular area should we anticipate its location? Surely common sense would dictate its position at the *head* of the alluvial plain? Are there any records extant of a dam thrown across the Tigris by the ancients at the commencement of the alluvial deposits? Sir William Willcocks himself brings to notice the existence of this mighty regulator—termed NIMROD'S DAM [1]—the ruins of which are still to be seen a few miles upstream of the modern village of Balad. Yet he repudiates, with no lack of emphasis, Xenophon's statement that four canals took out of the Tigris and emptied into the Euphrates. In fact, Sir William Willcocks places the key to Babylonia well down the Euphrates at the intake of the Saqlāwiyah channel, and gives as his opinion that the Median Wall stretched from the Euphrates near Tel Safera to the Akkar Kuf. If the Saqlāwiyah regulator *had* represented the key to Babylonia, then, when Cyrus the Great set out to conquer the Babylonian Empire, would he not have

[1] Plate 2. Nimrod's Dam (see p. 20).

marched to seize this regulator, taking into consideration the fact that he had already made himself master of the Upper Euphrates and Assyria? Cyrus the Great's actual plan of campaign *was* to gain possession of the true key to Babylonia, viz. Nimrod's Dam. Nebuchadnezzar II. erected his outer rampart to protect this key, and Nabonidus marched to defend the key against Cyrus the Great. The opposing armies met near Opis. Once more, if we can satisfy ourselves that Nimrod's Dam represented the actual key to Babylonia, then Opis must be sought for somewhere in its neighbourhood.

Let us now turn our attention to the survey of the scheme, as illustrated in Map 2, for the defence of the key to Upper Babylonia, viz. Nimrod's Dam. In order to obtain a lucid grasp of the many and varied details of the general plan, it will be expedient to divide the defences into sectors as indicated below, reference also being made to Diagram No. 2.

MAIN WALL.
- *Sector A.* From the fort at the N.E. termination inclusive to the Izhaqi Canal Basin exclusive.
- *Sector B.* From the Izhaqi Canal Basin inclusive to the gateway at the angle inclusive.

SWITCH WALL.
- *Sector C.* From Sa-ud Fort inclusive to the angle on the counterscarp of the moat of the main wall inclusive.
- *Sector D.* From the upper terminal fort on the right bank of the Tigris inclusive to the acute angle a mile south-west inclusive.
- *Sector E.* From the acute angle exclusive to the brick regulator inclusive.
- *Sector F.* From the brick regulator exclusive to the angle on the Izhaqi depression inclusive.
- *Sector G.* From the angle on the Izhaqi depression exclusive to the angle on the counterscarp of the moat of the main wall exclusive.

Let us now proceed to an examination of these sectors in detail, commencing with sectors A and B. In sectors A and B the main wall [1] is constructed throughout

[1] Plate 3, "The Main Wall."

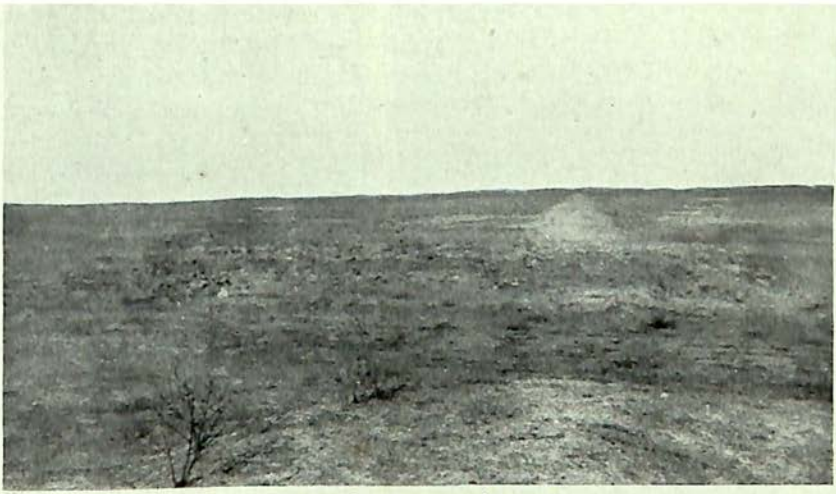


PLATE 2.—NIMROD'S DAM.
Showing a breach made by the Tigris.

PLATE 3.—THE MAIN WALL.

[*Facing p.* 20.

of crude brick; and, as in the outer wall of the city of Babylon, it may owe its preservation to this very fact. Of the plan of construction of the main wall an archæ-

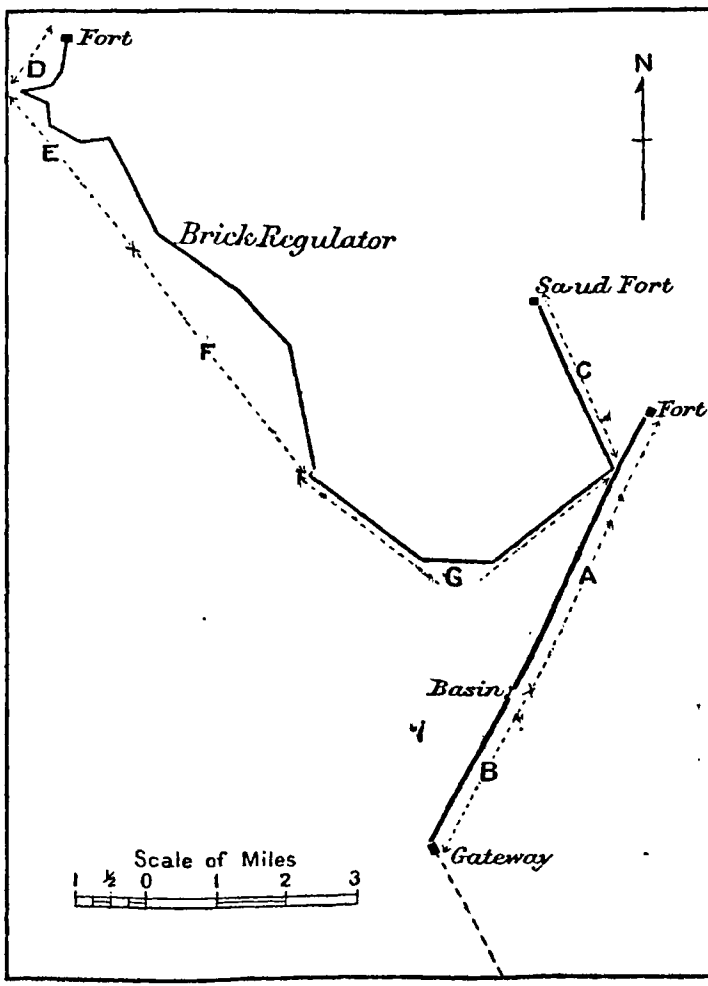


DIAGRAM NO. 2.

ologist must speak; in such matters the conjectures of an amateur are worthless and perhaps misleading; but from excavations which have already been conducted

in the vicinity of the railway cutting it would appear that the wall was not built of solid crude brick, but that it consisted of two containing-walls of crude brick about five feet in thickness, the intermediate space being divided off into separate compartments by cross partitions of crude brick. It would also seem that these compartments were then filled up with the residue of the gravel left over from the manufacture of the crude bricks, which had been dug during the excavation of the moat. As regards the actual defence of the wall, this was secured by placing bastions on its outer face at regular intervals along the entire length of sectors A and B. These bastions[1] were of considerable size and were spaced about 60 yards, or perhaps 120 Babylonian ells, apart.

Let us next turn to an inspection of the triangular area contained within sector A, sector C, and the right bank of the ancient bed of the Tigris. The extremity of the main wall is guarded by a fort of great strength and considerable dimensions. The fort is to all appearances in a good state of preservation, and excavation should furnish interesting, if not highly important, results. The accompanying diagram will illustrate the construction of this fort so far as is traceable on the surface. It is marked on modern maps as Imam Al Khubr, which being interpreted means "the tomb of Khubr." The fort is surrounded on all sides by a moat, and, as we should anticipate, the moat is spanned by a brick bridge, the position of which reveals the exercise of surprising ingenuity. Instead of being situated halfway along the north-west face, which would give direct access through the gateway into the centre courtyard, it has been placed opposite the north angle. Thus, all traffic crossing the bridge would necessarily approach full on to the bastion at that corner. The advantages of such a plan are obvious. The bridge itself would be commanded

[1] Plate 4, "A Bastion on the Main Wall."

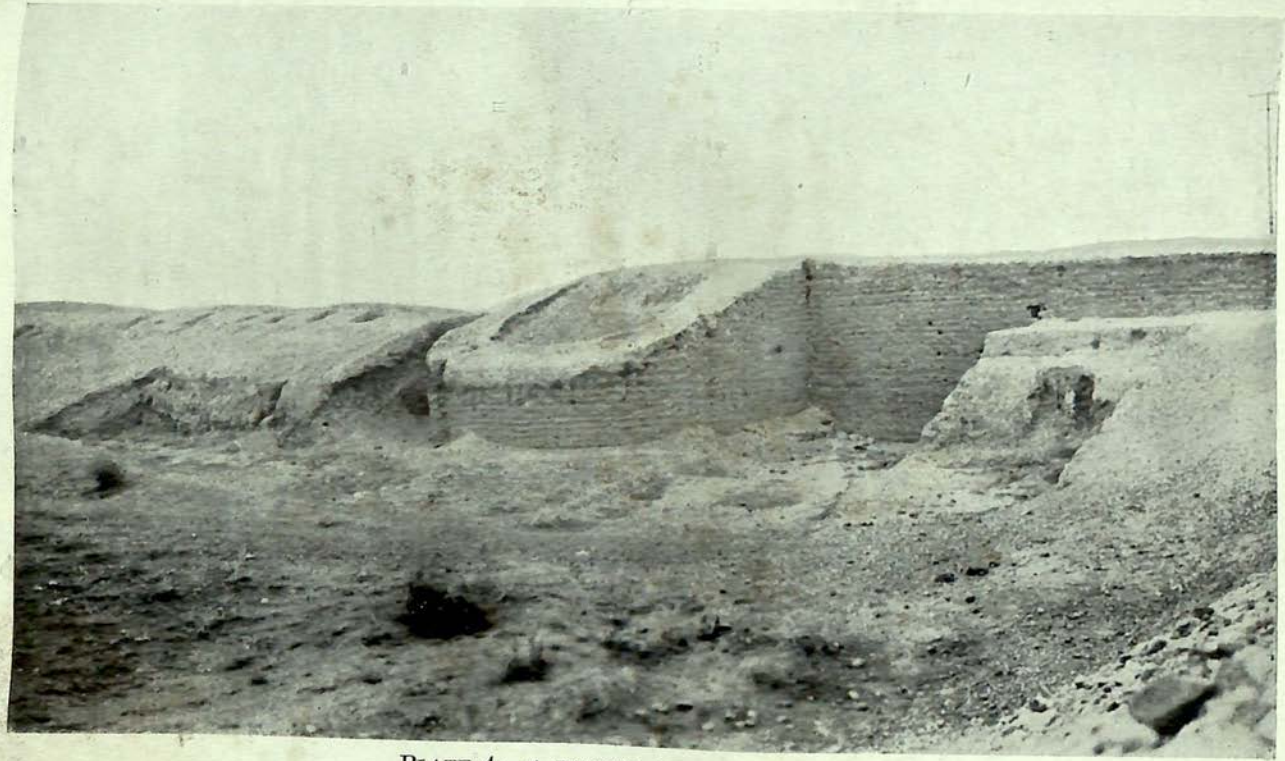


PLATE 4.—A BASTION ON THE MAIN WALL.

Facing p. 22.]

by the bastion, and the roadway, after turning at right angles, would continue immediately below the embattle-

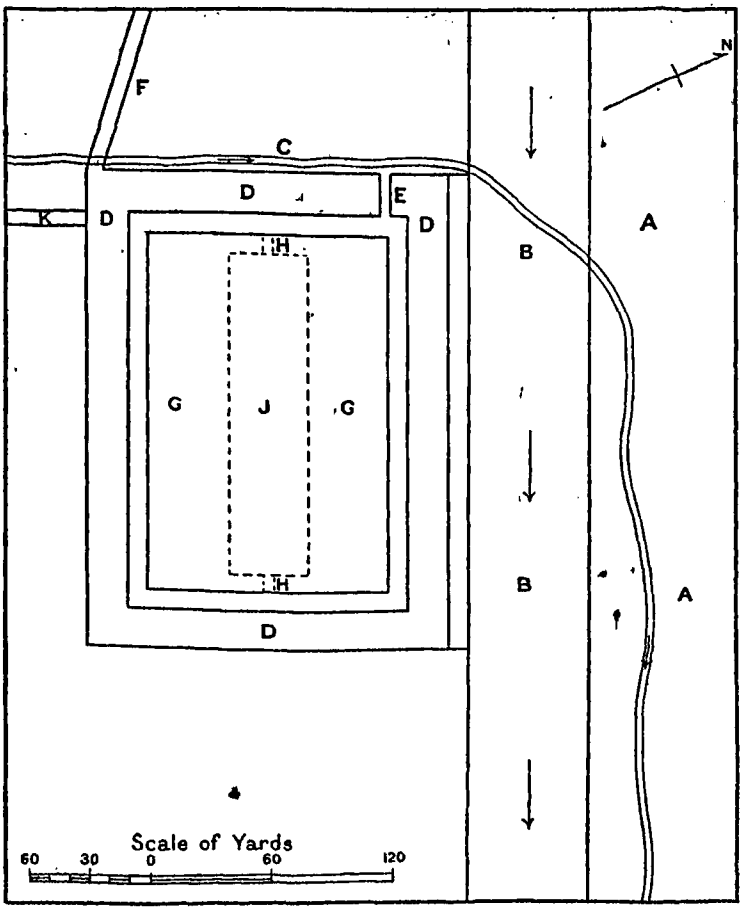


DIAGRAM No. 3

Explanation of Lettering.

A Ancient Tigris Bed.
B Ancient Dujail Canal.
C Present Dujail Canal.
D Moat.
E Bridge.
F Moat Canal.
G Quarters and Embattlements.
H Gates.
J Courtyard.
K Main Rampart

ments, until another right-angled bend would lead traffic through the gateway. It is evident that any

instrument of war, such as a battering-ram, would be unable to negotiate the angle in the roadway opposite the northern bastion; and even if such a feat were accomplished room to operate it would be lacking when it did arrive in front of the gate. Thus, by means of this skilfully devised scheme, the utility of a battering-ram would be entirely discountenanced, and the Assyrian inscriptions furnish us with ample proof of the paramount part played in the assault of fortresses by such engines of war. Then we find that contiguous with, and situated on the farther side of, the moat protecting the north-east face, the broad waters of the ancient Dujail Canal swept past, and a short distance beyond the south-west face flowed the two wide canals trending away in a southerly direction, as the Arabs expressed it—" into the desert." Thus this extremely important " pivot-point," in addition to its own embattlements, was defended in the first instance by a moat; and, again, on the north-east by the magnificent sweep of the Dujail Canal, not to speak of the overflow of the Tigris from Nimrod's Dam; and on the north-west by no less than four canals, namely, the two " desert " canals and two lesser water-ways. Of these latter, the particular object of the eastern one was to feed the moat of the fort, and the function of the most western of the four was to fill the moat of the main wall, the waters of which extended up to the left bank of the Izhaqi Basin, access to the latter being shut off by the construction of a strong earthen dam.

Let us next continue upstream from the terminal fort of the main rampart and ascertain the nature of the archæological data presented, as illustrated in Diagram No. 4.

Following up the right bank of the ancient Dujail Canal, we find the small canal, which fed the moat with water, taking off about a quarter of a mile above the fort. Still further on, the two other large " desert " canals also take off the Dujail. In both the latter waterways

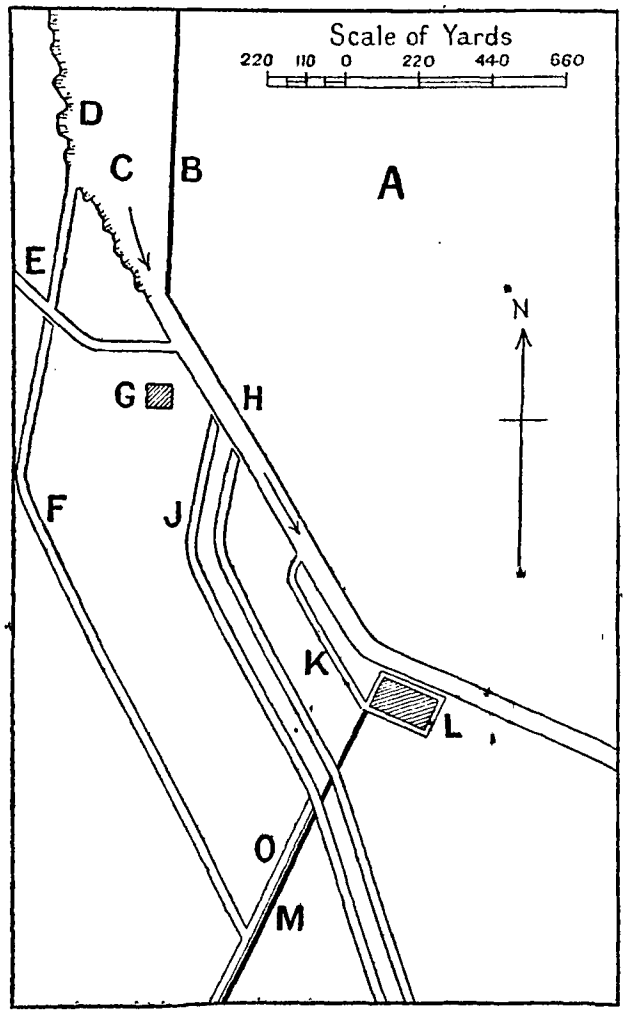


DIAGRAM NO. 4.

Explanation of Lettering.

A Ancient Tigris Bed.
B Nimrod's Dam.
C Basin.
D Conglomerate Cliffs.
E Sa-ud Dujail Canal.
F Main Rampart Moat Canal.
G Ruin.
H Ancient Dujail Canal.
J Two Desert Canals.
K Fort Moat Canal.
L Terminal Fort of Main Rampart.
M Main Rampart.
O Main Rampart Moat.

the heads are blocked by means of earthen regulators. We next strike the remains of Nimrod's Dam,[1] and opposite its southern extremity is a mound representing perhaps a subsidiary fort of minor dimensions, the particular object of which may have been to prevent the passage across the head of the Dujail Canal to Nimrod's Dam being forced. At this point, also, we find the mouth of the short canal which flowed as straight as an arrow from the Sa-ud fort at the termination of the switch wall. Then, about another quarter of a mile up this canal, it is cut through by the feeder serving the moat of the main rampart up to, but excluding, the basin in the Izhaqi depression. At the spot where the moat-feeder cuts through the southern bank of the Sa-ud—Dujail Canal, its bed is blocked by a thick earthen regulator. The use of this regulator is quite apparent. Its function was to prevent the waters from the moat flowing back into the Tigris if the level of the basin above Nimrod's Dam dropped below that required to keep the moat full. The short northern extension is also cunningly devised. This section, together with that portion of the Sa-ud—Dujail Canal below it, when filled with water from the Tigris reservoir would furnish an angled defence from the west and south to the southern end of Nimrod's Dam. Continuing up the Sa-ud—Dujail Canal, when a point just south-east of Sa-ud fort and west of the canal is reached, about 100 yards east of the switch wall, three brick-strewn mounds are visible, isolated from each other. There are also indications of a building opposite these ruins and situated on the bank of the Tigris. The functions of these ancient works are not obvious; but they may represent a guarded ascent from a quay on the side of the reservoir. Next we strike the head of the Sa-ud—Dujail Canal, which cuts the bank of the Tigris immediately down-stream of the Sa-ud fort (*vide*

[1] Plate 2, "Nimrod's Dam, showing a breach made by the Tigris" (see p. 20).

Diagram No. 5). The Sa-ud fort itself is protected on the south and west by another moat-like canal, which takes out of the Tigris about half a mile or so above the fort. It does not connect with the Sa-ud—Dujail Canal, its outlet being blocked by a massive earthen regulator. We thus see that the Sa-ud fortress defending

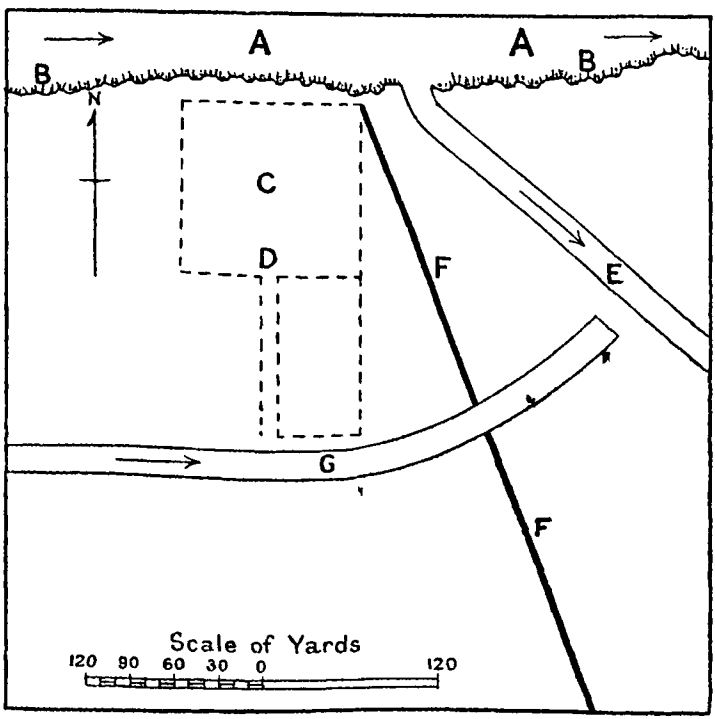


DIAGRAM NO. 5.

Explanation of Lettering.

A Ancient Tigris Bed.
B Conglomerate Cliffs.
C Sa-ud Fort.
D Entrance.
E Sa-ud-Dujail Canal.
F Switch Wall.
G Moat Canal.

the lower termination of the switch wall is protected on all four sides by water. The ruins of the fort itself have been badly mutilated by brick-robbers, and its design is not clearly traceable on the surface. Diagram No. 5

would appear to give a reasonable conception of its general outline and dimensions.

Our next step will be to follow along the switch wall from Sa-ud fort to the angle on the counterscarp of the moat of the main rampart. A striking feature of this switch wall is that the raised mounds, which are spaced at regular intervals throughout its length, are not, in this sector, located on the centre line of the wall, but alternate to right and left as shown in the accompanying Diagram No. 6.

At first, the reason for this divergence from the centre line was not apparent, but eventually the mystery was probed. These mounds can represent nothing else but bastions facing successively to right and left. The

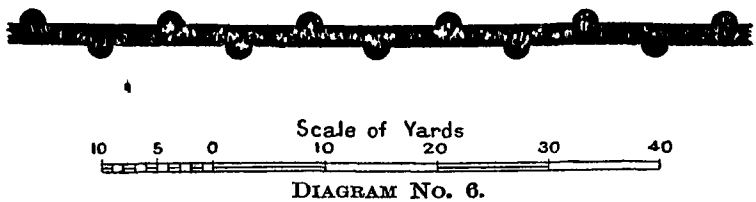


DIAGRAM NO. 6.

plan is highly ingenious, for whether the attack were to come from east or west, or from east and west simultaneously, the defenders would at all times, and literally speaking, "have their backs to the wall." As regards the strength of the switch wall, it cannot of course compare in massiveness with that of the main rampart, but such a *desideratum* would not be expected. The next point of interest is furnished by a gateway constructed about a mile down from Sa-ud fort, which has been almost completely destroyed by brick-robbers, and at about the distance of another mile along the wall there existed a second fortified gateway. The present-day cart track (as opposed to the road for motors) passes through the switch wall over the foundations of this gateway. Some of the bricks have been dug up for the erection of a cairn, none of which were inscribed,

and excavation might suffice to disclose its form and measurements. From the second gateway, the switch wall carries on without interruption, except where it is pierced by the canal, as indicated on the map, till it reaches the counterscarp of the moat of the main rampart, where it trends in a south-westerly direction. The angle is clearly defined, and there is no break at the corner. There is, however, in this sector of the defensive scheme one special feature, the absence of which cannot be passed over without comment. So far as superficial indications would point, this portion of the switch wall is not protected at its immediate face by any form of moat, an omission for which some very cogent reason must have existed.

Let us now leave the main rampart temporarily and apply ourselves to an examination of the western and upper sectors of the defences, commencing with sector "D." It will be found that a better perspective of the essential details will be obtained if we work our way down-stream from the north-western limit of the fortified area, than upwards from the main rampart.

As we should fully expect, the upper extremity of the switch wall was guarded by a fort perched on the brink of the conglomerate cliffs forming the right bank of the Tigris. East of the railway, the line of the switch wall is not clearly defined; thus, without detailed survey and perhaps excavation, the position of its junction with the terminal fort cannot be accurately gauged. Its alignment on the accompanying diagrams, Nos. 7 and 9, is therefore purely tentative. About 800 yards up-stream of this terminal fort, is situated the mouth of a broad lateral moat crossing from the Tigris to the Jali Canal, and at its point of union with the Tigris there exist the ruins of an ⅃-shaped brick building, as shown in Diagram No. 8. The function of this work was evidently to guard the passage over the moat-canal by way of the earthen regulator which blocked its exit,

and we may reasonably surmise that the right-angled bend was contrived with the same object in view as that disclosed in the construction of the fort that guarded the Tigris termination of the main rampart, namely, to prevent the employment of a battering-ram. Continuing along the switch wall, Diagram No. 9 shows us that from the terminal fort it carries on S.S.W., and subsequently almost due west, being protected throughout its length by the broad moat-canal flowing immediately to its north. At this point the author was confronted

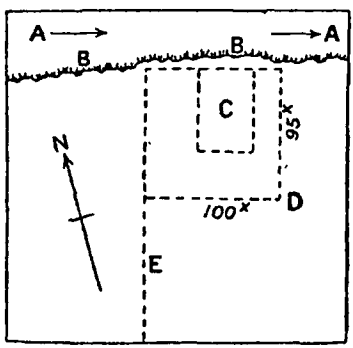


DIAGRAM NO. 7.

Explanation of Lettering.
A Ancient Tigris Bed.
B Conglomerate Cliffs.
C Fort.
D Outer Wall.
E Switch Wall.

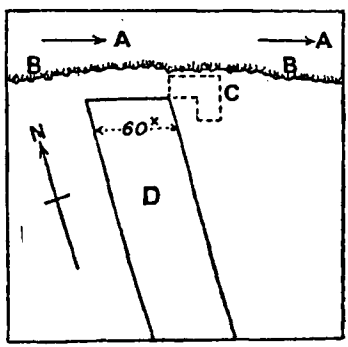


DIAGRAM NO. 8.

Explanation of Lettering.
A Ancient Tigris Bed.
B Conglomerate Cliffs.
C Fort.
D Lateral Moat Canal.

by a riddle, the elucidation of which required a considerable degree of imagination. A correct solution of the enigma was only achieved when the lamentable inaccuracy of the survey map was fully realised. The official degree sheet, scale 1 inch to 1 mile, marks the Izhaqi Canal as extending upwards with its head opposite Tekrit, and the very existence of the Jali Canal is entirely ignored. In reality there are two distinct canals, both of large capacity. The canal marked on the 1 inch to a mile sheet is, in actual fact, the Jali Canal, and is correctly inscribed as such on the four mile to an inch

map. About half a mile to the east of the Jali Canal, is to be seen to this day the bed of the Izhaqi Canal proper. Its banks are clearly visible immediately behind the railway buildings at Samarrah station, and its course below this locality is traceable without much difficulty until the permanent way cuts across it some four miles lower down, after which its trend is defined by a few

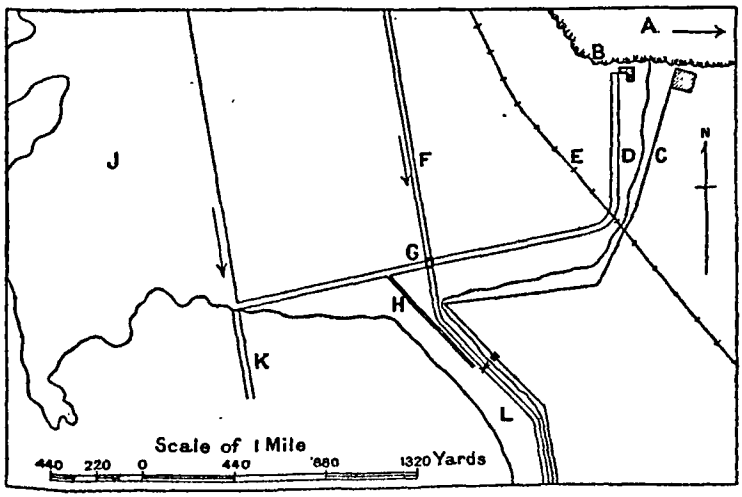


DIAGRAM NO. 9.

Explanation of Lettering.

A Ancient Tigris Bed.
B Conglomerate Cliffs.
C Switch Wall.
D Lateral Moat Canal.
E Railway.
F Izhaqi Canal.
G Four Regulators.
H Small Distributory.
J Jali Basin.
K Jali Canal.
L Izhaqi Depression.

heaps of shingle, spaced at irregular intervals. As regards the position of the head of the Izhaqi Canal, the author could not devote the leisure necessary to determine its location definitely, but its bed was followed for about 800 yards above Samarrah station until its right bank merged into the edge of the conglomerate bluff. The discovery of this fact revealed the motive for digging the Jali Canal through this promontory

in place of conducting it round eastwards. If the latter alignment had been adopted, then the Jali Canal would either have emptied again into the Tigris (if at that period of history the waters of the river had washed the cliffs of the plateau), or else it would have cut into the Izhaqi Canal, both of which contingencies had, of course, to be avoided.

Now let us pass to an investigation of the Jali Canal. Observations conducted on the actual ground proved beyond dispute that this canal was essentially a basin canal. Thus, opposite Samarrah station, and below where it emerges from the plateau, its left bank, in the form of a broad flat ridge of earth, is distinctly visible, standing about 600 yards back from the gravel uplands. In this manner it formed a large sheet of water stretching for a few miles down its course, receiving not only the waters of the Tigris, but in addition the surface drainage off the plateau. Then, again, due west of the upper terminal fort its left bank is defined by a high and conspicuous ridge of solid proportions. The author examined the point of union between the cross-moat and the Jali Canal most carefully. There is still an earthen regulator *in situ* across the Jali Canal, as shown on the plan, and the large expanse of the basin immediately above it was self-evident. Returning to the acute-angled bend in the switch wall, the whole elaborate scheme of the water defences was unfolded. Firstly, the Jali Canal was constructed as much with the object of presenting a formidable barrier to an invader as for purposes of irrigation, and it opened out into extensive reservoirs where the plateau receded. As already mentioned, one of these large sheets of water was situated due west of the upper terminal fort. In consequence of the water being derived from the Tigris opposite Tekrit, the level in this reservoir could always be maintained at a greater height than that of the surrounding plain. Next, at the outlet of this particular basin the cross-moat

took off, extending as far as the right bank of the Tigris, but its mouth was blocked by a substantial earthen dam. This alignment necessitated the moat cutting the Izhaqi Canal proper at right angles. It is evident, therefore, that at the crossing, in order to control the flow of the Izhaqi Canal, and also to maintain the water in the moat at a high level, the entry and exit of each branch at the point of crossing would have to be provided with regulators. To ensure stability, it is probable that these four regulators were constructed of brick and supplied with sluice-gates, as the surface of the ground at this spot was littered with fragments of broken brick. Similarly, the mouth of the Jali Canal reservoir and the head of the cross-moat were each furnished with earthen dams. By this scheme of regulators the lower reaches of the Izhaqi Canal could be fed either from the Tigris, or from the Jali Canal, or from its own source of supply, as occasion demanded, and it will be seen later what important functions the Izhaqi Canal fulfilled in the entire plan of the defences. Furthermore, by closing the eastern and western reservoirs at the cross, the waters of the moat could be kept brim full, while those of the Izhaqi Canal would pass straight down, perhaps at a lower level. Also, by cutting the northern bank of the moat the entire countryside could be flooded; and as the soil is composed of alluvial silt, it could be turned, within a comparatively short space of time, into a sea of mud rendering the movement of all arms impossible.

Let us now turn to a consideration of the points that come to notice in sector "E."

About a quarter of a mile below the acute-angled corner of the switch wall, we find the remains of a bridge that used to span the Izhaqi Canal, together with a fortified gateway, which is in a tolerable state of preservation, although the bridge has suffered markedly at the hands of brick-robbers. Still continuing down-stream,

and about a mile further on, the ruins of another fort were observed (see Diagram No. 10). No traces of a brick bridge over the canal were visible, and from this fact we might infer that the passage was effected over a bridge of boats. About half a mile below this outwork, the wall is pierced by a canal with a north to south trend. Time did not admit of the inspection of this canal in detail, so that its trace cannot be entered accurately on the map. About a mile and a half below its junction with the Izhaqi Canal, and blocking its bed, a brick regulator was discovered, which had been ruthlessly mutilated by brick-robbers. Flanking this regulator was an earthen dam, traversing the entire width of the depression, and immediately above it connection was established with Istabalat City by means of a tributary canal, as traced on the plan. Now, only levels taken carefully will show whether the water in this minor canal was derived from the Izhaqi and flowed towards the Tigris, or *vice versâ*. The existence of the earthen dam, which extended from bank to bank of the depression, furnished a clear indication that the water could be stored up if occasion demanded behind this barrage; and as it could be fed from the Jali reservoir, already mentioned, its level could probably have been raised above that of the Tigris basin upstream of Nimrod's Dam. It is quite possible that its lie was such that it could have been served either by the Tigris or Izhaqi Canal, in whichever basin the water happened to be highest at any particular

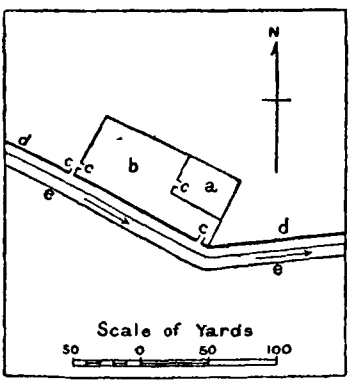


DIAGRAM No. 10.

Explanation of Lettering.

a Barracks.
b Courtyard.
c Gates.
d Switch Wall.
e Izhaqi Canal.

moment. However, its function, together with that of its sister cross-canal, was quite obvious. Each comprised a separate line of defence for Istabalat City.

Let us continue our observations with an examination of the archæological remains contained in sector "F."

Immediately below the regulator, the moat fronting the switch wall took off, and about half a mile further down the remnants of a brick bridge over the canal were noticed. The whole of one pier had been removed bodily, leaving only the cavity which its foundations had once filled. This practice of robbing ancient bricks is much to be deplored, but as Istabalat was the site of a brigade camp for some months during 1917–18, the odium for this flagrant act of vandalism may rest with a none too discriminate soldiery. The ruins of the bridge over the moat, and those of the gateway through the switch wall, are, comparatively speaking, well preserved. The line of the ancient roadway trending north-eastwards was distinguishable, and evidently led to the west gate in the outer fortified wall of Istabalat City. Another half a mile or so down the canal, are to be seen the ruins of a similar brick bridge over the canal, and a smaller one that spanned the moat, also a gateway through the switch wall. Of the former bridge, the earth surrounding the pier of one arch had been entirely removed when discovered by the author, disclosing to view the spring of the arch. It is to be hoped that this excavation has not been undertaken as a preparatory step to the robbing of this brick fabric. The line of this ancient highway could still be discerned curving round to the gate located in the centre of the southern wall of the city; and this entrance was also clearly defined by the mass of broken bricks scattered over the ground in its vicinity.

But what of Istabalat City itself? May we not be certain that it, too, played a leading rôle in the general defensive scheme? In this connection, the first feature that comes to notice is that it has not been built along

the river front as we should expect an ordinary city to be constructed. There is no topographical drawback in the locality which might have prevented a rational course of town-planning being executed. Surely, then, the design on which it was laid out, as we see it at the present day, was dictated by some very pressing reason. Was not the function of Istabalat City essentially to place a strongly fortified barrier across the strip of ground stretching between the right bank of the Tigris and the switch wall of the Izhaqi depression? The contention, perhaps, may be raised that if the fundamental object in building the city was for the purpose ascribed, it would have been planned with its longer axis running N.E. and S.W., and its outer wall close behind the moat-canal, instead of nearly due north and south, as is the case. On consideration, however, does not its actual alignment offer greater military advantages from a defensive view-point than if it had been constructed with its longitudinal face at right angles to the direct line of assault? Firstly, the assaulting formations, after overcoming the difficulties of effecting a crossing over the second lateral canal would have to wheel half-left to gain their assigned direction—a most hazardous manœuvre to carry out in the face of an enterprising enemy, even with the most highly disciplined troops. In the second instance, do not the switch wall and the western outer rampart of the city form two deflecting lines in the shape of a "V," thus herding the attacking legions into a veritable funnel, and throwing their ranks into indescribable confusion? Further, would not a successful sortie on the part of the striking force, either through the portals of the western face of the city or through the upper of the two gateways in the switch wall, take the adversaries attacking the opposite objective in the back? No, the more we study the minor and major defensive schemes of the ancient Babylonians, the more we discover how the principles of "V"-shaped

deflecting lines were invariably mastered and skilfully applied. Previous commentators, one and all, have never given the ancient engineers credit for possessing such intuition, and have ascribed to them the faulty design of constructing barriers in the shape of ramparts stretching in a direct line from one natural obstacle to another over miles of intervening country, quite ignoring the precept that such a form of defence gives no scope for the delivery of the counterstroke.

But let us continue with the details of our exploration. At some point below the brick regulator, which was unfortunately missed, a branch takes out of the left bank of the main Izhaqi Canal; thus, in the bed of the depression we have two distinct waterways. Next we come to the ruins of two small mounds, showing brick-work *in situ*, about 600 yards apart, where the depression curves southwards. Both these relics of a bygone age are located on the counterscarp of the moat of the switch wall. Their function was not revealed, but it is possible that they formed abutments of foot-bridges across the moat. Such a surmise, however, is pure speculation. Following down the depression, what purports to be a natural knoll is encountered rising out of the fairway of this long-deserted bed of the Tigris, backed by a patch of elevated ground. The secondary canal skirts this island closely, and at its southern extremity the remains of a brick building litter the surface. Immediately opposite this structure, if superficial evidence can be deemed of sufficient reliability, the moat appears to traverse the switch wall from its west face to its east face, and after carrying on down for a further 600 yards or so, it terminates abruptly. In connection with the switch wall the same peculiarity was observed as described in relation to sector "C," namely, that the bastions were built facing each way alternately and, of course, out of the centre line; the intervals between any two bastions fronting in one direction were carefully

paced and found to measure 12½ yards, or an equivalent of 25 Babylonian ells, a much lesser space than the 60 yards or 120 ells of the Median Wall, and the 30 yards or 60 ells of the outer rampart of Istabalat City.

Let us now complete our survey by a study of the details revealed in sectors "G" and "B," and in the adjacent terrain, commencing with the angle in the switch wall at the western extremity of sector "G." This corner was evidently recognised as a weak link in the defences. A short distance north of the angle the subsidiary canal pierces the switch wall, as a result of which a gap unprotected from the east by any barrier of water is occasioned. To rectify this disability, a strong earthen embankment was thrown up, if the inferences drawn are correct, starting from the termination of the moat and running S.S.E. up to, and continuing through and beyond, the secondary canal. In this manner it formed a regulator for that waterway. The scheme was cleverly designed. In order to place a barrier of water directly in front of this breach, the earthen regulator across the secondary canal would be closed, and the left embankment just behind it would be cut, thus allowing the water to pour into the triangular space north-east of the gap, until it was filled to the requisite level, when, of course, the opening in the canal embankment would again be blocked. By this means the break in the switch wall would be furnished with adequate protection in the form of a considerable sheet of water.

Now, in order to miss no particular detail of the defences, let us first follow the subsidiary canal down to its terminus, then travel back along the switch wall to the left flank of sector "G," after which we will explore the Izhaqi Canal as far as the barrage on the main rampart, and finally we will discuss the archæological data revealed in sector "B," which, from a historical and geographical standpoint, will perhaps prove to be of the greatest significance.

The subsidiary canal discloses the same scheme of construction as that noted in the Jali Canal, namely, that wherever the contour of the plateau forms bays the canal stretches out into large expanses of water. It will be noted that about a mile below the point where it passes through the switch wall in sector "F," it curves back and almost touches the wall again. From this bend downwards, its right bank has been strengthened, and its left bank exists only where the canal has been driven through rising ground. In this manner this barrier may be said to have comprised a chain of basins projecting northwards, connected by short lengths of canal. It is unnecessary to dilate upon the formidable nature of the obstacle thus presented. At one point only throughout this reach were any indications found of a road running from north to south. This subsidiary canal does not figure on the official degree sheets; the trace of its course therefore is only approximate. However, at the place indicated on the plan, stood an isolated outwork in the shape of a fort (see Diagram No. 11), and its function was evidently to guard the crossing over the canal, which must have been effected by means of a bridge of boats. Continuing down, we find that the canal pierces the switch wall in sector "C," just above the angle on the counterscarp of the moat of the main rampart, and although its actual terminus has been obliterated by the excavation of material for the construction of the railway embankment, we can assume without fear of misjudgment that its exit was blocked by an earthen dam, which could be cut when the occasion demanded. Travelling back along the switch wall, only one point arose which calls for remark. About the centre of the southern portion of this sector, stood an ancient gateway. It has not been disturbed in recent years, and the large square bricks of its foundations are still *in situ* and intact. Scientific excavation of this gateway, a labour of the most minor nature, should

hold out promises of furnishing us with accurate data of the mode of construction and dimensions of these fortified gateways. The location of this gate has furnished us with a second distinctive landmark on this ancient highway, and a close examination of sector " A " should reveal yet a third signpost, for we may be positive that this thoroughfare did not terminate blindly, but gave access to the east either through or over the main

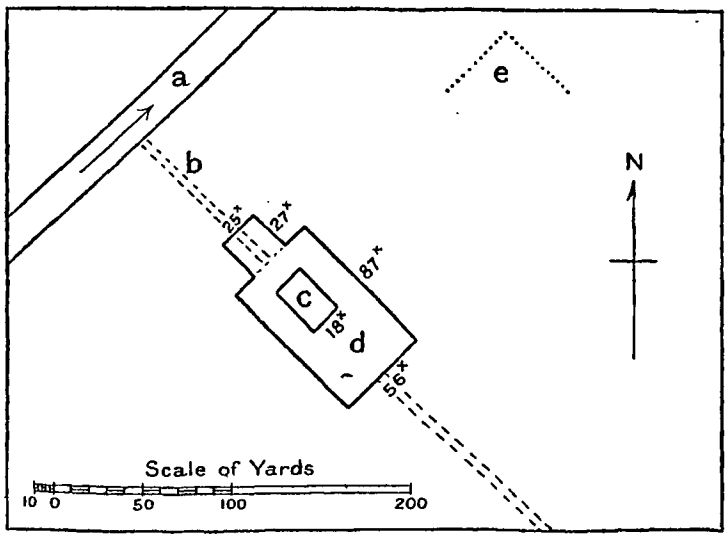


DIAGRAM No. 11.

Explanation of Lettering.

a Defensive Canal.
b Ancient Road.
c Barracks.
d Courtyard.
e Outlying Building.

rampart. Carrying on up the switch wall, we find that just S.W. of the angle at the extremity of sector " G," there exists a small mound containing debris of burnt bricks, but for what particular object this outwork was constructed was not obvious. Traversing the bed of the Izhaqi depression, we strike the left bank of the canal of the same name. Once again we are confronted with the fact that from this locality downwards this waterway opens out into a series of basins contained by

its left bank (which has been systematically reinforced to resist the extra weight of the water) until the final reservoir is encountered, formed by the barrage along the alignment of the main rampart. It will be noted that the end of the moat of sector " A " is blocked by a strong earthen dam, thus the water from this length did not communicate with the Izhaqi Basin, whereas in sector " B " the head of the moat-bed is open, showing distinctly that it drew its supply of water from the reservoir. Turning back for a brief moment to an examination of the earthen dam closing the moat-exit of sector " A," indications exist that this dam had been raised in the form of a ramp, as shown in Diagram No. 12, and that this curved and narrow incline formed the means of access by way of the track already mentioned to a wicket-gate located on the embattlements of the wall. Such an approach would in no way tend to diminish the strength of the defences, and the adoption of such a plan would ensure a connected line of rampart being presented to the direction of the attack without

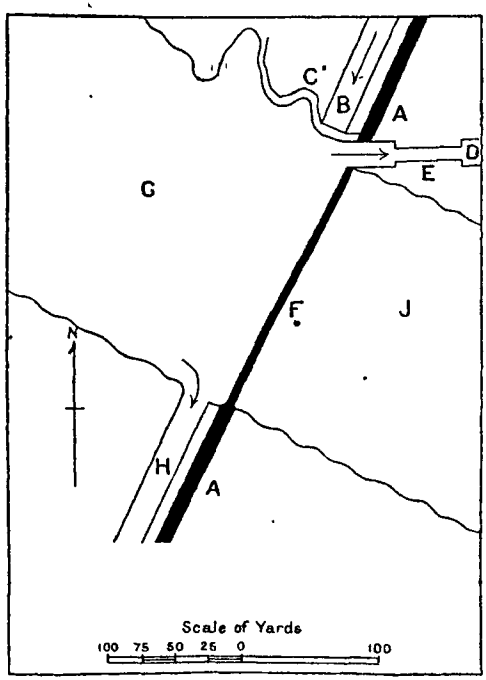


DIAGRAM No. 12.

Explanation of Lettering.

A Main Rampart. E Lock.
B Moat. F Barrage.
C Inclined Ramp. G Izhaqi Basin.
D Izhaqi Canal. H Moat.
J Izhaqi Depression.

the concomitant weakness of a breach in the form of a gateway. At this spot, too, another point of interest is disclosed. It will be observed that at the north-eastern extremity of the barrage the Izhaqi Canal again takes out (the gap at the other end is unmistakably a natural washaway after the system had fallen into desuetude). Immediately below the head of the lower Izhaqi Canal, and for a space of about fifty yards, the bed of the canal is disproportionately narrow, and as far as superficial appearances would indicate, we should have in this constricted length a lock closed at both ends by gates to enable vessels to pass up and down the canal at will. Here, too, we should look for the bridge, spanning the canal, giving intercommunication between the two sectors. This bridge probably consisted of beams or trunks of date palms, which could be removed without difficulty if the necessity arose. The canal carries on in a direct line until it reaches the western of the two waterways forming the "desert" system, where it takes a right-angled bend south-eastwards, following the general direction of its sister waterway.

There now only remains sector "B" for examination. The extent of rampart is a short one, but it holds the key that should unlock one of the mysteries that has puzzled geographers and scientists for the past century and more. After quitting the barrage across the Izhaqi depression, the rampart carries on in the same prolongation of the north-eastern sector for the space of a mile and a half or so; then, for some reason, which we may be sure was an essential one and not fortuitous, it bulges outwards to a very slight degree, receding again as its termination is approached. What was the fundamental cause of this divergence from the straight line was not disclosed, but it was possibly dictated by necessity in connection with the level of the moat. After traversing approximately two and a half miles the explorer comes to—well—the author, who spent the best

part of two hours at the spot, identifies it as a gateway. First let the reader examine Diagram No. 13. Careless observers have affirmed that the rampart ceases abruptly. In the sense that it does not carry on in the same alignment they are perfectly correct; but not one of them has made mention of the raised platform of earth that stands back from its terminus, nor have they interpreted the function for which the original was constructed. One commentator puts forward the suggestion that the wall after being built so far was abandoned, and that Artaxerxes II., having insufficient time to complete it as far as the Euphrates before the arrival of Cyrus the Younger, caused his famous trench to be dug, by way of fortification, in prolongation of the existing rampart. This point was touched upon when in conversation with a critic, and the author put the pertinent query whether the particular geographer in question had ever inspected this extremity of the Median Wall. The answer given was that he had not visited it on foot, but that *he had flown over it.* If such conjectures represent the outcome of observations from the air the sooner this method of collecting intelligence is discarded the quicker we shall arrive at the acceptance of really reliable data. There is no trace of any trench on the ground in prolongation

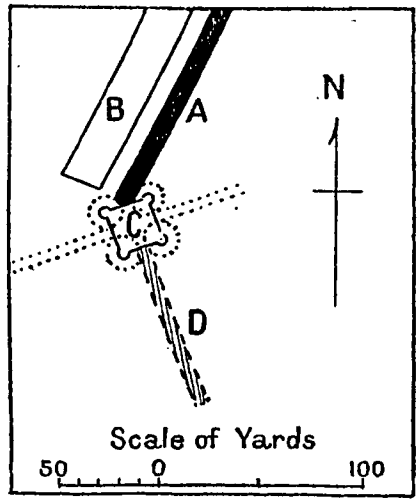


DIAGRAM NO. 13.

Explanation of Lettering.

A Main Rampart.
B Moat.
C Gate at Angle.
D Probable alignment of Main Rampart to Sippar.

of the rampart. There are no superficial remains of any wall in its continuation or in any other direction, and the moat to all seeming ceases abruptly. If Artaxerxes II.'s trench did actually connect up with this section of the rampart, then there should infallibly remain some outward and visible signs of its existence. The ground in prolongation bears no signs of excavations of this nature, and it is a physical impossibility that such marks should have been obliterated by floods, for the terrain here consists of the Fars geological series, and not the alluvial silt of the Tigris. What, then, of the remainder of the rampart? The contention may be put forward that if we expect to obtain on the surface tangible evidence of the trench, we should equally well anticipate observing the ruins of the wall on the ground. Not at all—let the reader turn for a moment to Professor Koldewey's book, *The Excavations at Babylon.* On page 1 we read, in connection with the outer city walls—

"There was a massive wall of crude brick 7 metres thick, in front of which, at an interval of about 12 metres, stood another wall of burnt brick 7·8 metres thick with the strong wall of the fosse at its foot, also of burnt brick and 3·3 metres thick."

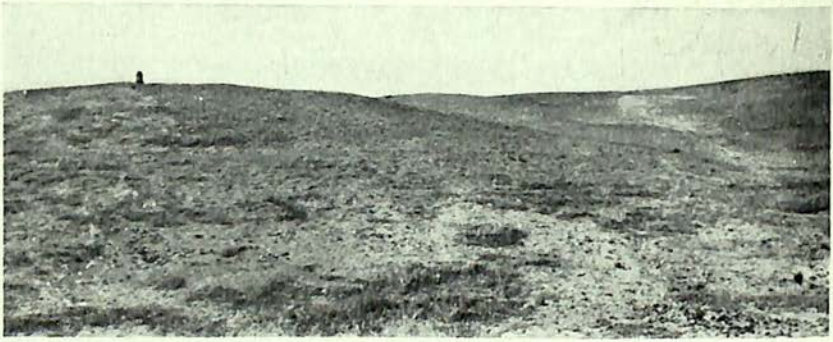
On page 4, Koldewey tells us that—

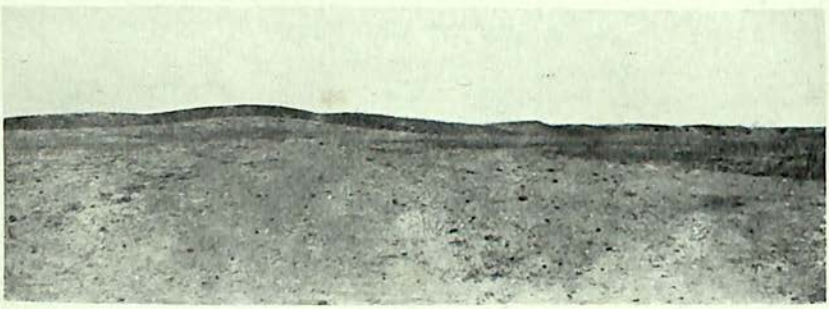
"The foundations of the brick wall are below the present water-level."

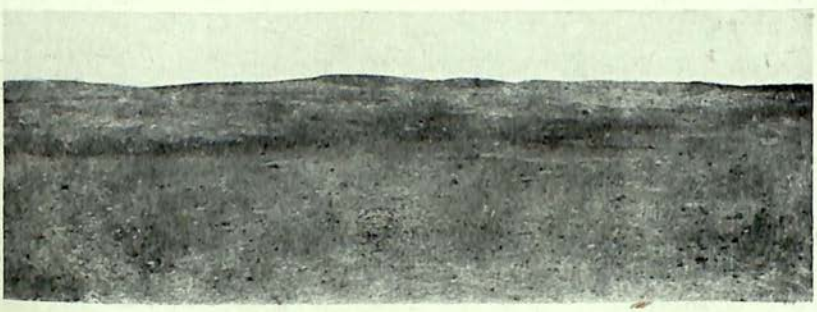
and again on the same page—

"with the exception of the portion near Babil, there is nothing to be seen of the burnt-brick wall without excavating."

If the burnt-brick wall of Babylon above ground has utterly vanished from our ken at the hands of brick-robbers, would we not be correct in supposing that a similar fate has befallen the continuation of the rampart beyond the gateway at the angle, provided, of course,







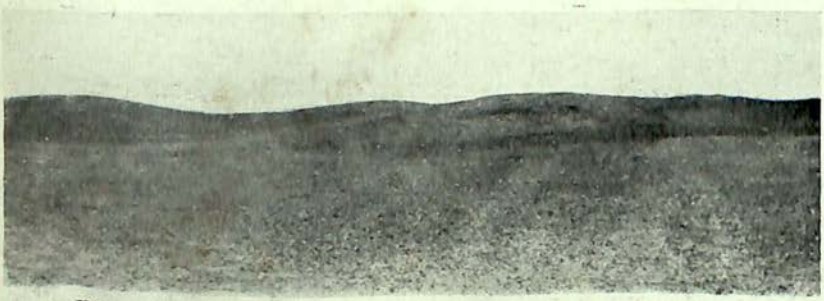


PLATE 5.—VIEWS OF GATEWAY AT ANGLE OF MAIN WALL.

Facing p. 45.]

that it was actually constructed of burnt brick. Have we any evidence to show us that it was composed of this material? Does not Xenophon relate that the Median Wall was built of burnt brick laid in bitumen? Mr. Ross, in 1836, was told by his Bedouin guides that—

"further inland it (the Median Wall) was built of brick and in some places worn down level with the desert."

Above ground, therefore, beyond the termination of the crude brick section we must not *expect* to find the ruins of the burnt-brick length, although there is still *hope* that in some places its foundations may still be discovered. Does not the very absence of such traces indicate that from this gateway onwards the rampart was constructed of burnt brick, thereby corroborating Xenophon's statement?

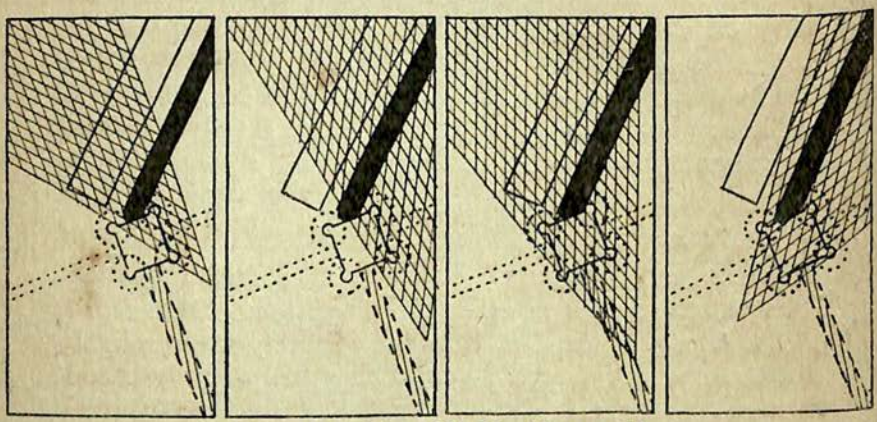
What inferences, then, are we to deduce from the data that we have gathered both positive and negative? First let the reader examine the diagram and Map No. 1. Acknowledging the fact that the gateway faces roughly S.W., in what direction would the rampart have continued? Surely towards the S.E. Prolong it, then, in this alignment on the ¼-inch sheets. To where does it lead?—SIPPAR. Does not this alignment correspond identically with that contained in Nebuchadnezzar II.'s inscription which we have already quoted?

As further proof, however, of the veracity of our conclusions, let the reader inspect minutely the accompanying four photographs[1] of the conjectural gateway, and to grasp the details to better advantage the use of a magnifying glass is advocated. The prints are not as clear as one would wish for, but the Mesopotamian climate does not deal kindly with photographic films.

The diagram attached to each photograph will illustrate the direction from which the view is obtained,

[1] Plate 5.

and the shaded portions indicate the extent of the ground figuring in each separate photograph. Do not they furnish a true conception of the raised platform in the centre flanked at each corner by a still higher mound ? Would we not suppose that these elevated knolls at the corners represent the remains of bastions ? However—as in other cases, so with regard to this abstruse riddle—the final word *must* rest with the scientific excavator. It is earnestly to be hoped that some trained archæologist will turn his pick and shovel to the task of



DIAGRAMS NOS. 14, 15, 16 AND 17.

snatching from this relic of a bygone civilisation the secrets that have remained locked within its depths for the past 2,500 years. Let the work be carried out as expeditiously as facilities will admit, for the vandal is ever on the prowl, and the ubiquitous brick-robber or ultra-inquisitive amateur may destroy unwittingly clues of priceless value.

Our review is now practically completed. There remain still two incontrovertible arguments, which favour the supposition that the left flank of the main defensive position was "refused" [1] instead of being prolongated in a direct line to the Euphrates. If the scheme had

[1] A military term, meaning "drawn back."

comprised one long straight rampart stretching from river to river, what would have been the utility of erecting this maze of subsidiary defences on the Tigris bank? Would not the invader have attacked the rampart in the weakest sector west of the Izhaqi Canal, and thus turned the entire block of the outlying defences? Secondly, if this alignment had actually been selected, a serious break-through in any one particular sector would have threatened the rolling up of the whole line.

No, a knowledge of the principles of military science clearly advocates the "refusal" of the left flank of the defences. Nebuchadnezzar II.'s engineers recognised this fundamental maxim, together with the equal vital one that the flank should rest if possible on some natural obstacle. Thus the left flank was "refused," and its alignment was directed on to the Euphrates to a spot where a pivot point already existed—viz. the city of Sippar, which we may be sure was as strongly fortified as the science of the day could devise.

Let us now take a final and general survey of our observations, bearing the fact constantly in mind that *Nimrod's Dam constituted the key to Upper Babylonia*, and that the entire elaborate scheme was drawn up with the object of preserving Nimrod's Dam intact at any sacrifice of blood and labour.

We will first suppose that the invader elected to march down the right bank of the Tigris delivering a frontal stroke. He would, literally speaking, have to hack a way through the following obstacles before he reached his objective, Nimrod's Dam: viz. the Jali Canal, the Izhaqi, the broad lateral moat, the upper sector of the switch wall, the two lesser lateral canals, Istabalat city, the switch wall again, the canal feeding the moat of the main rampart, the Sa-ud—Dujail Canal, and lastly, the Dujail Canal itself, nearly 200 feet in breadth—eleven formidable barriers, comprising two fortified walls and nine waterways—a Herculean task,

in truth, which even the most intrepid of commanders would hesitate to essay.

Next we will imagine that the assault was planned to be delivered from the west. With what obstacles would the Chief be faced ? In succession, his hosts would encounter: the chain of basins of the Jali Canal, the main Izhaqi Canal, the subsidiary canal, and perhaps the whole breadth of the flooded depression, the moat, the switch wall, the switch wall again, the canal feeding the moat of the main rampart, the Sa-ud—Dujail Canal, and the Dujail Canal itself—in all, ten barriers. Well, this attack on the flank of the defences would hardly hold out better prospects of a successful issue.

Lastly, we will surmise that the blow would be delivered from the west against the main rampart south of the angle, in which event the following obstacles would have to be surmounted: the main rampart, made of baked brick 20 feet thick and 100 feet high, with its moat perhaps; the Izhaqi depression, which could be flooded from the reservoir above the barrage in the same manner as Clearchus experienced after the battle of Cunaxa; the Izhaqi Canal, the two "desert" canals, again the main rampart and moat or terminal fort and moat, the two desert canals a second time, and lastly, the Dujail Canal itself—eleven barriers.

If the word "impregnable" was ever worthy of application to the key of a vast province, surely it could be employed without cavil in connection with Nimrod's Dam, the key to Upper Babylonia. Yet a military genius was to arise, in Cyrus the Great, who would achieve this seemingly impossible task.

Now, up to this juncture we have dealt solely with the defences of Nimrod's Dam on the right bank of the Tigris. It would be folly to suppose that the key was left unprotected at its northern extremity. The author has not yet studied in detail the defences on the left bank of the Tigris, but Map 2 will demonstrate the fact that

the maze of canals and the octagonal-shaped city of Kadisiyah point to the supposition that detailed examination of the terrain may disclose the existence of an equally elaborate scheme of defence for the protection of the northern termination of the dam.

However, discarding the defences to Nimrod's Dam on the left bank of the Tigris, have we then accumulated sufficient evidence to warrant our assuming on reasonable grounds that we have found the key to Upper Babylonia? The final word will rest with the trained excavator; but if we can place reliance on our conjecture that Nimrod's Dam furnishes the key to Upper Babylonia, and that the wall which exists to this very day represents Nebuchadnezzar's outer rampart, then we can assert positively that the site of Opis will be found not many miles down-stream of the Median Wall.

CHAPTER III

THE SITE OF OPIS (*continued*)

Now our next step in the elucidation of the problem of the site of Opis will be to examine the topography of the country below the Median Wall. The present writer obtained the opportunity of spending several days on the actual ground, and the results of his observations are recorded below.

On the night of the 11/12th January, 1920, the author, with his party, detrained at Balad railway station,[1] and the early part of the morning was devoted to settling into "quarters."[2]

At this juncture it is proposed to take the reader systematically step by step over the terrain. When one is exploring new ground, discoveries come tumbling over each other haphazard, and it is only when the entire scope of the research work is scanned that a connected survey is evolved. In preference, therefore, to following the itinerary of the expedition day by day, we will start from the Median Wall and work our way down-stream.

Immediately below Nimrod's Dam the whole breadth of the Tigris valley was not examined; it is therefore not possible to indicate on the map the exact line of the ancient bed. In any event, such could hardly be expected; as, when the dam became breached, the river would in all probability have become divided into several

[1] Plate 6, "Balad Railway Station."
[2] Plate 7, "Author's quarters at Balad Railway Station."

PLATE 6.—BALAD RAILWAY STATION.

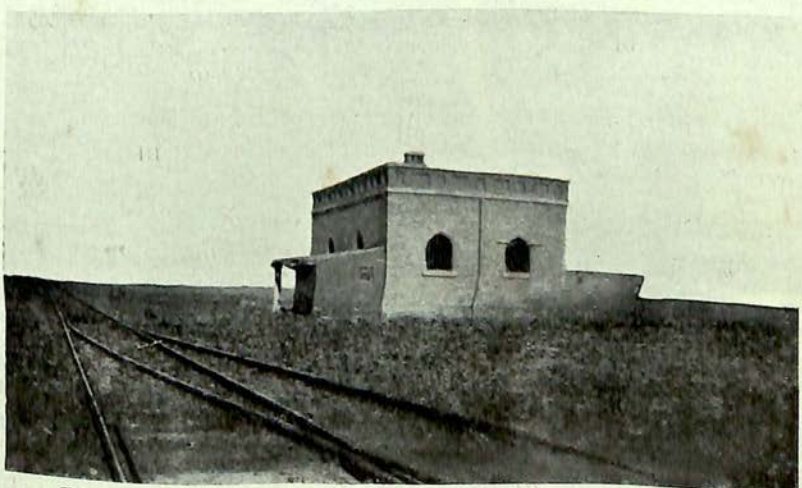


PLATE 7.—AUTHOR'S QUARTERS AT BALAD RAILWAY STATION.

[*Facing p.* 50.

channels. The bed, however, is again clearly distinguishable about three miles further down in the vicinity of a mound known as Al Alt. But let us hark back for a moment. About two miles north-east of the terminal fort of the main rampart a prominent mound rises out of the alluvial silt of the Tigris valley, known by the Arabs as Jibbārăh. The mound is well preserved as far as superficial indications point, but brick-robbing has been practised to a certain extent at the eastern extremity of the mound, which is raised. Other forces also have been at work to destroy the handiwork of the ancient peoples, for a portion of the northern face of the mound has been washed away in recent years by the Tigris. The cliffs thus formed were scrutinised carefully, but no traces of the walls of ancient buildings were distinguishable; such pristine relics are probably buried many metres deep beneath the accumulated rubbish deposited by later generations of nomads.

From Jibbārăh a track leads to the modern village of Balad, and after traversing about four miles of plain a conspicuous mound is seen about half a mile to the north-east of the path. On the survey maps this "tel" is marked as Abdul Qadir, the name evidently being derived from that of the tomb which crowns the summit of the mound. The actual designation of the ruin is Tel Musayeh, and this locality undoubtedly marks the site of an ancient city, as evidenced by the numerous artificial hillocks scattered over this area. The south-westernmost one, Tel Musayeh, forms the principal mound of the group and rises to the height of about 30 metres above the level of the surrounding plain. Diagram No. 18 indicates the topographical features of this mound. The northern face has been excavated, either by local Arabs or for military purposes of cover, for this mound furnished one of the pivot points in the defensive line constructed round Balad to frustrate any Turkish attempt to retake Baghdad. The excavation

disclosed a very considerable overburden of rubbish, streaked with ashes, but the strata did not reveal any remains of ancient buildings; but such was hardly to be expected, as at the Amran mound of Babylon 21 metres of filth had to be removed before the temple of Esagila was disclosed.

Let us now retrace our steps and follow down the former bed of the Tigris.

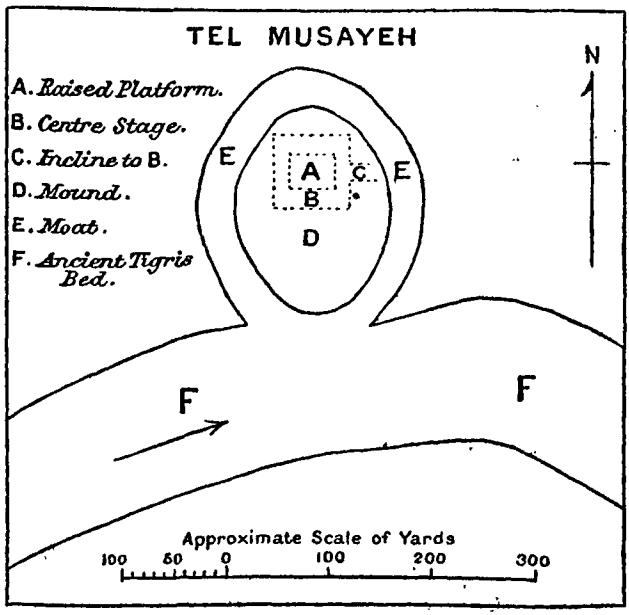


DIAGRAM NO. 18.

When the present writer passed the mound of Al Alt brick-robbing was in full blast, and the walls of many buildings had been laid bare. From Al Alt downwards the ancient bed of the Tigris is clearly defined, and after traversing about three miles the extensive mound of Harbah is reached. It has proved a veritable mine for the infamous brick-robber, and his nefarious practices have left the entire surface pitted to such a degree that the mound resembles now an area that has been subjected to intensive artillery fire. The author was

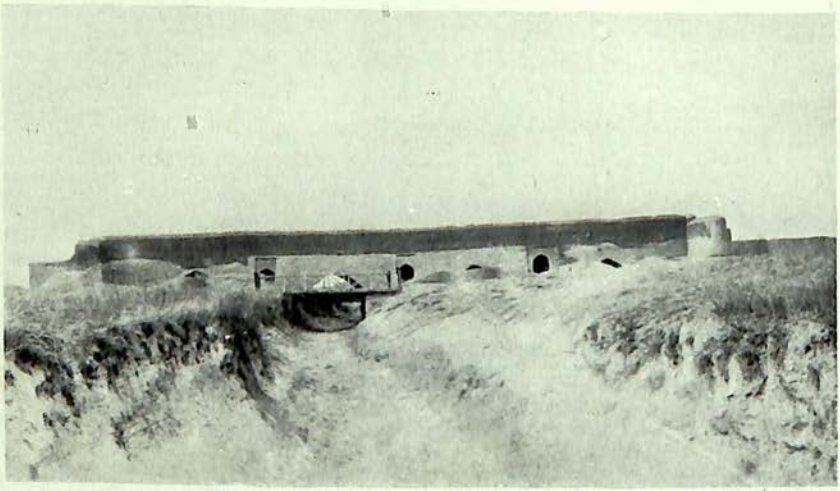


PLATE 8.—BRIDGE OF VICTORY.
Showing present Dujail Canal.

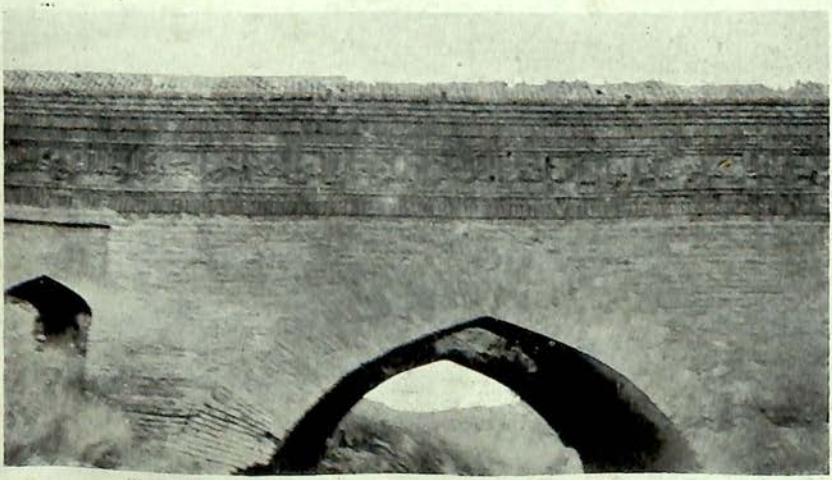


PLATE 9.—AN ARCH OF THE BRIDGE OF VICTORY.
Showing inscription and breach in the roadway.

Facing p. 53.]

credibly informed by the stationmaster at Istabalat that Harbah derived its name from being the residence of the historical Ali Baba and his forty thieves! The next point of interest in this vicinity is the Caliphate Bridge of Victory[1] that spans the Abassid Dujail Canal. It will be noticed from the photograph to what an extent the old bed has silted up. The present-day canal, it will be seen, occupies the breadth of one arch only. The photograph of this arch shows the breach made by the Turks in the roadway during their retreat to Samarrah, and above the crown of the arch may be deciphered a portion of the inscription which runs from one end to the other on the coping of the bridge.[2]

Returning to the main depression, we find that it skirts the modern village of Balad, and about 1½ miles south of this hamlet there stands a narrow and elongated mound known locally as Tel Būgzăz. The surface of this mound is pock-marked with the pits of brick-robbers, and it is evident that, owing to its proximity to Balad village, it has, in conjunction with Harbah, furnished the material for the construction of the houses of the present-day hamlet.

Continuing down the ancient bed of the Tigris, we next come to the group of mounds of which the principal one is termed "Abir." Let us examine the topography of this locality carefully. First we have the broad sweep of the Tigris on the south and another depression to the north and east. This latter ancient channel was followed up by the author until the present bed of the Tigris cut right into it just above Sinījah. It will also be observed that the waters of this depression had access to the main river through a channel to the north-west of the ancient city. This lateral depression has silted up to a considerable degree, probably due to the fact that

[1] Plate 8, "Bridge of Victory."
[2] Plate 9, "An arch of the Bridge of Victory, showing inscription and breach in the roadway."

it may have been utilised as a moat. In this connection it should be borne in mind that the floods of the Tigris are caused by the melting of the snows on the lower slopes of the mountains of Kurdistan, and occur in March and April, whereas spates in the Adhaim River are occasioned by rain, and in consequence the latter stream is at its fullest during the winter months. It is quite possible, therefore, that in ancient times the waters in the two depressions were interchangeable. That is to say, from November to February the surplus flood-waters of the Adhaim could have been drained into the bed of the Tigris, and from March onwards the reverse process could have been put into practice. It is true that at the present time the eastern termination of this lateral depression is blocked by the dry bed of a canal, but this work may quite well be assigned to a much later period of history, probably after Nimrod's Dam had been breached, and the Tigris had broken away to the east, leaving only a small volume of water in its former bed.

Both the main Tigris and Adhaim channels are well-defined for another four miles, when a second lateral connecting depression is encountered. This depression is much shallower than either of the two main beds, and its function was probably to drain off a portion of the surplus Tigris flood-water into the Adhaim depression when circumstances did not admit of the upper connecting channel being utilised for that purpose. At the present time its intake on the south-west is blocked by the banks of a disused canal; but in all likelihood this waterway was constructed subsequent to the era when the city supported a flourishing population. What initial topographical deductions, then, can we confirm without relapsing into conjecture? Firstly, the broad, southern depression undoubtedly marks the ancient bed of the Tigris. Then, in the narrower northern depression, about 100 feet in breadth, where it has not been

affected by the erosion of the Tigris flood-waters, we have the old channel of the Adhaim River forming a connection with the Tigris north-west of the city, but flowing on past its eastern wall. Then four miles down-stream a second lateral channel connected the two rivers, containing water perhaps only when the Tigris was in flood, the largest volume of each river still pouring down its respective channel.

Let us next turn to an examination of the actual city itself. In the north-west angle we find a well-preserved mound, about 120 yards square, which might possibly represent a fortified palace. In any event it must denote the site of a building of some importance. Brick-robbers have been pursuing their reprehensible practices, and a burnt-brick wall has been exposed to view. Continuing south-eastwards, the next point that comes to notice is that a space about 150 yards in breadth, clear of all buildings, was left between the eastern bank of the Tigris and the wall of the city, facing south-west. The construction of the city rampart at this distance back from the brink of the river was, from an engineering view-point, essentially a wise precaution to take; for, in the event of the Tigris overflowing its channel, the outer city wall would not be subjected to the full force of the flood. Pursuing our way down the old bed, a cluster of mounds of some magnitude is descried on the right bank immediately opposite Balad railway station. These ruins furnish us with a precise guide to the line of the ancient thoroughfare connecting the Eastern world with the Western civilisation, and crossing the Tigris at Opis; which fact in itself was probably instrumental in making Opis a trade emporium of the earlier ages.

Still travelling down the depression, we encounter in the south-east angle of the city area the mound known to all local Arabs as "Tel Abir." Diagram No. 19 will serve to illustrate its plan and section, and its general

aspect is to be seen in Plate 10,[1] taken from the plain, looking towards its south-west corner. It is possible that this mound represents the site of an ancient fortified palace, or perhaps temple. The outer walls appear to be bastioned, and superficial indications point to the fact that at one period it was surrounded by a moat. The mound comprises two stages. The upper stage bears unmistakable traces of having been attacked with pick and shovel by some ultra-inquisitive nomad. Whoever the excavator may have been, he has succeeded in uncovering a portion of burnt-brick wall, which fact

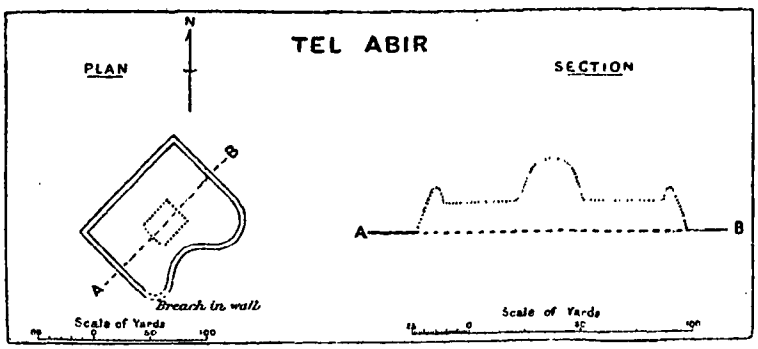


DIAGRAM NO. 19.

is well demonstrated in Plate 11.[2] The outer wall of the lower stage is well preserved, but it has been breached at the south-east corner by natural drainage off the raised floor of the bottom stage. Plate 12[3] shows this break, together with the second stage discernible through the gap, the figure being that of the Arab guide standing at the spot where the excavations have been conducted. The scientific archæologist may possibly find a rich reward buried under the debris of Tel Abir. A short distance to the southward, a long mound is visible; its contour bears the appearance of a

[1] Plate 10, "Tel Abir, looking towards its S.W. corner."
[2] Plate 11, "Tel Abir, showing excavations."
[3] Plate 12, "Tel Abir, showing breach in wall of lower stage."

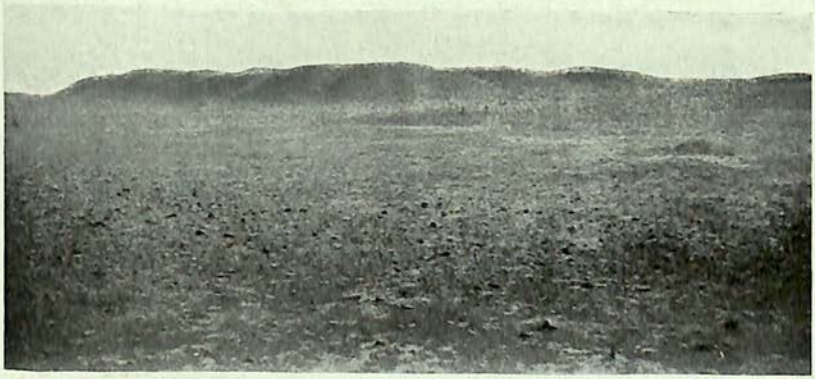


PLATE 10.—TEL ABIR, LOOKING TOWARDS ITS SOUTH-WEST CORNER.

PLATE 11.—TEL ABIR, SHOWING EXCAVATIONS.

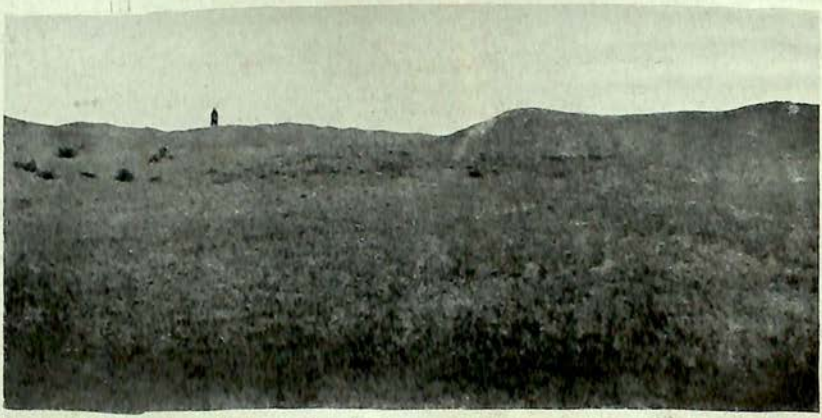


PLATE 12.—TEL ABIR, SHOWING BREACH IN THE WALL OF LOWER STAGE.

[*Facing p* 56.

river-front highway running parallel to the bed of the Tigris, the southern face of which would represent the outer city rampart. After traversing a few hundred yards, this street is cut into by an earthen ridge striking approximately north to south. There can be little doubt that this elevated dyke comprises the eastern outer city rampart. The southern city wall, however, does not terminate at the junction, but extends for a further 350 yards or so. The object of this prolongation was patent. An acute angle of this description would always prove a weak point in the defensive perimeter; and an enterprising enemy might succeed in cutting the earthen dam blocking the exit from the moat, thereby draining it of water. In order to obviate this contingency, and also perhaps to prevent natural erosion by the Tigris, the rampart was carried forward parallel with the left bank of the river, the moat continuing along its north-eastern face. The whole area is strewn with fragments of burnt bricks and broken pottery. There is abundant evidence to show that at some period of history this locality supported a large and populous city, and the debris which litters the ground between the eastern city wall and the bed of the Adhaim would point to the fact that the actual city area had become so congested that an overflow beyond its confines proved inevitable. More than one day was devoted to an examination of the other mounds in this vicinity. To the east of the Abir group, and on the left bank of the old bed of the Adhaim River, lies a mound of fair size. The survey maps mark it as "Tel Dhahab," but the local Arabs designate it as "Tel Zāhāb." Then to the north, and on the right bank of the ancient Adhaim River, lies the mound erroneously entered on the degree sheets as Tel Abir. This mound is quite an insignificant one, and certainly does not give rise to the impression that it could ever have existed as "a large and populous city." How the mistake in tabulation arose is a matter

for speculation; but whatever excuse may be tendered by the surveyor, the error might have proved most unfortunate, had it not been detected by a personal visit to the neighbourhood.

A whole day was devoted to an excursion to the two mounds, named "Tel Jafur" and "Tel Manjūr." Yet again one was forced to the conclusion that neither of these two mounds could by any stretch of imagination have possibly flourished as "a large and populous city." Each is an isolated mound of quite diminutive proportions, and, with the exception of Tel Jafur, there is not another mound of any consequence within a radius of 1½ miles of Tel Manjūr. Plate 13 [1] reproduces its whole extent, which can be accurately gauged by comparison with the three Arabs standing on its summit. The site is certainly an ancient one, as a stone implement was recovered from amongst the debris of broken bricks and pottery scattered over its surface. Opportunity did not offer to examine the mounds denoted as Shaikhān and Atraifān, but a view through prism glasses did not lead one to suppose that at any time their size was greater than that of an ordinary village. A group of mounds, however, situated in the angle between the ancient Adhaim channel and the lateral connecting depression certainly marked the site of a small town; but to what period of history it belonged was problematic.

The next point of topographical moment is the direction which the ancient Tigris bed took below its junction with the lateral depression. The author could not spare the necessary time to trace its course down accurately below this point. It could be seen trending away southwards and passing to the west of Sumaichah village. Its probable course below this point is shown on Map 1, but further exploration is necessary before its ancient bed can be accurately defined. Turning, then, to a study of Map 1, is it not clear why Xenophon, after

[1] Plate 13, "Tel Manjur."

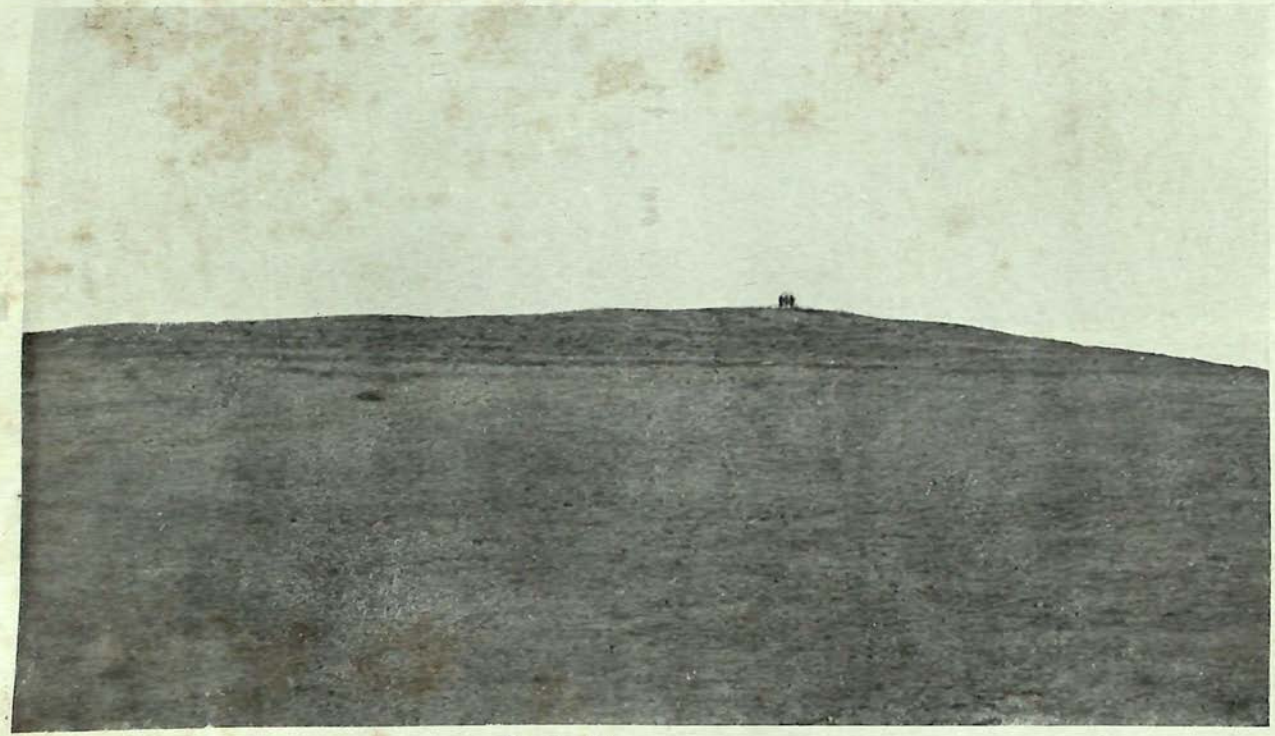


PLATE 13.—TEL MANJUR.

Facing p. 58.]

leaving Sittace, made no mention of the Tigris at Opis, or on the march there. Surely it was because the Physcus flowed between the retreating Ten Thousand and the river Tigris. Is it not clear from the topography that his army crossed the Physcus by a brick bridge near the Abir triangle, and from the extent of the ruins would not the Abir group substantiate the belief of its having been, in the zenith of its glory, a large and populous city? Cannot we judge with accuracy the reason why Alexander the Great, after sailing up the Tigris subsequent to his expedition to Susa, disembarked at Opis *en route* to Ecbatana? Was it not, firstly, the fact that Nimrod's Dam barred further progress to his fleet, and secondly, that Opis lay on the direct route to Ecbatana up the Adhaim River to Kirkuk, and thence via Sulaimaniyah? Was not this road the exact one taken by—

"the natural brother to Cyrus, and Artaxerxes, who was marching to the assistance of the King, at the head of a numerous army, which he had drawn out of Susa and Ecbatana,"

when he encountered the Ten Thousand Greeks at Opis?

What is the verdict? Can we substantiate our claims that the site of Opis has at length been definitely determined? The pick and the shovel of the trained archæologist can alone answer that question.

CHAPTER IV

ANCIENT MESOPOTAMIA

In the preceding two chapters we have set forth the topographical data elucidated by an exhaustive exploration of the ground; it will now be expedient to examine the descriptions of Mesopotamia as rendered by the various classical writers, and compare them with the details of the terrain as observed, together with the inferences which we can deduce from a study of our maps. In this manner we may be enabled to identify the sites of some of the ancient cities, and also to solve problems of geographical and historical importance.

Let us make a start by endeavouring to delineate the various districts mentioned.

First we have Adiabene. Pliny [1] tells us that its northern frontier consisted of a range of mountains, bordering on Armenia, and taking a cross direction. This chain is evidently the one represented by the southern ridge of the Kurdistan mountains, and Pliny further states [2] that Mount Zagrus separates the Medi and the Adiabeni. Its eastern boundary may be said to coincide with the Diyala River, that is to say, if the Ona River of Ammianus [3] can be accepted as the Diyala, a problem which has already been discussed, and its western march with the Tigris, whilst its southern border abutted on the Jabal Hamrīn range. In another

[1] Appendix 13, Bk. VI., ch. 9, 9.
[2] *Ibid.* ch. 31.
[3] Appendix 15, Bk. XXIII., ch. 6, 20.

passage [1] Pliny describes the Tigris and inaccessible mountains as surrounding Adiabene, and he also states [2] that a portion of Adiabene, namely, the country round Arbela, was called Arbelitis.

The next district presented is Sittacene. Its boundaries appear to be rather involved, for Pliny remarks [3] that it is also called Arbelitis and Palaestine, whereas Strabo states [4] that this extensive and fertile tract of country lies between Babylon and Susiana, so that the whole road, in travelling from Babylon to Susa, passes through Sittacene. The question then arises—in what direction did this route run ? Some commentators have assumed that the road must have led in a south-easterly direction. But this theory cannot be accepted topographically on account of the existence of the large tracts of marsh-land, termed the Chaldean Lakes, through which the Tigris flowed. This highway in all probability stretched out northwards from Babylon, traversing Sippar and Sittace, at which point it crossed the Tigris, and continuing by way of Opis it passed through the present hamlet of Tazah to Kirkuk, where it would have joined the Royal Road from Sardis to Susa. If this proposition is tenable, then we can deduce the fact that Sittacene stretched northwards from Babylon to the Zagrus mountains, in which case Adiabene would form a division of this district.

Another division of Sittacene would be Messene,[5] which we may take roughly to comprise the island constituted by the old bed of the Tigris and its southern branch in the form of the ancient Dujail Canal. It is of interest to note that this district still retained its name during the Abassid period, where, as Maskin, it is frequently mentioned by the Arab geographers,[6] lying to the

[1] Appendix 13, Bk. VI., ch. 31.
[2] *Ibid.* ch. 16.
[3] *Ibid.* Bk. VI., ch. 31.
[4] Appendix 9, Bk. XVI., ch. 17.
[5] Appendix 13, Bk. VI., ch. 31.
[6] Appendix 16, ch. 3, p. 306.

north of West Baghdad and being watered by the Dujail.

Then to the east of Sittacene, beyond the Diyala, according to Pliny,[1] lay the district of Chalonitis, with Ctesiphon as its capital. Strabo,[2] however, places it much farther to the north and bordering on the Tigris, but this positioning would appear to be erroneous. In any event, the boundaries of the various districts, as defined by the Greek and Roman writers, would seem to be confused, and accurate demarcation is not possible.

Let us next turn to a detailed examination of the physical features, and the cities and towns specified by the ancient historians, making a commencement with Adiabene.

Herodotus,[3] as we have already mentioned, describes this district as traversed by three rivers, the two Zabs and the Gyndes, which we have previously identified with the Adhaim.

Strabo[4] informs us that the plain of Aturia, in which Nineveh stood, bordered upon the places about Arbela; between which flowed the river Lycus, which is identified with the Greater Zab, and he continues by stating that after Arbela and the mountain Nicatorium is the river Caprus, situated at the same distance from Arbela as the Lycus. The Caprus is thus coincident with the Lesser Zab. The position of the mountain Nicatorium is not known, but it is named in connection with Arbela, consequently it should be sought for in proximity to that town. What, then, of the city Demetrias? At this juncture, it might be expedient to describe some of the archæological details on the route between Erbil and Kirkuk which came under the personal observation of the author.

The first stage on the journey to Kirkuk from

[1] Appendix 13, ch. 6, 30.
[2] Appendix 9, Bk. XI., ch. 14, 8.
[3] Appendix 5, Bk. V., 52.
[4] Appendix 9, Bk. XVI., ch. 3.

Erbil comprises an enclosed serai called the Police Post, situated sixteen miles from the latter town. Within a hundred yards of the Post is an artificial mound of some considerable height, which rises from the plain. This mound evidently represents the site of the first of the four Royal Stations[1] in the Matienian country on the road to Susa, after leaving Arbela; and its excavation would seem highly expedient, and such should produce valuable results. Three miles farther on is situated another similar mound, which might very well represent a subsidiary station, utilised perhaps when two large trade caravans were travelling in opposite directions and happened to require camping space at the same time. The next stage on the modern route is the small town of Altun Kupri, the houses crowding both sides of the Lesser Zab. Whether the ancient highway followed the exact line of the modern route is questionable, but the site of the Royal Station might more probably have been situated either up or down stream of the present town, as the Lesser Zab at this point literally earns its title of "mad." The location of Altun Kupri is evidently unsuited for a passage by boats, as both banks are rock-bound, although in this connection it should be borne in mind that 2500 and more years of erosion of the bed will have taken place since the Royal Road came into use.

Nothing further of archæological interest transpires until a very conspicuous artificial mound is approached about eighteen miles short of Kirkuk. Here, six hundred yards to the north of the road, are to be seen clear indications of the remains of an ancient city clustering round this prominent mound of imposing appearance, which forms a striking landmark visible from a distance of many miles. Its most characteristic feature is the clear-cut outline of the second stage superimposed on the lower platform, which might very well represent the ziggurat of some ancient temple. Does this group of

[1] Appendix 5, Bk. V., ch. 32.

mounds represent the site of the city of Demetrias? Such a conjecture is tenable, unless further topographical search discloses the traces of a town in closer proximity to Erbil, in which case such a site would have to be accorded prior claim. There is one point, however, to which attention must be drawn. Strabo tells us that near Arbela is the city Demetrias [1]; next is the spring of naphtha, the fires, etc., etc. Now, the spring of naphtha still exists, and the fires are burning to this very day. For the following description of the fires, the author is greatly indebted to Miss G. L. Bell, Oriental Secretary to His Excellency the High Commissioner of Mesopotamia.

"The fires at Kirkuk are situated 5 miles N.N.W. of Kirkuk, at a place called Baba Gurgar, and about a quarter of an hour from the naphtha wells which have worked for a very long time past. The fire is due to escaping gas which comes up through cracks in the ground and is usually alight if not artificially extinguished. The fires are not always constant in the same spot, but tend to shift their position over an area of some 100 square yards or so. The area of the fires is not at any one time more than 8 or 10 yards across. The gas would not seem to be in any great volume; the flames are small, little licking fires burning in the cracks. The place is in some low foothills, a shallow cup between low mounds."

If the ruins to which allusion has just been made do not represent the site of Demetrias, then we should have expected Strabo to have recorded the name of this town in his narrative. Circumstances point, then, to the probability of Demetrias being identified with this group of mounds. Now, the mention of this spring of naphtha by Strabo is of material importance. Quintus Curtius Rufus [2] notifies that Alexander, at the beginning of his march from Arbela to Babylon, kept bearing to the left, his road lying over levels. Quintus Curtius

[1] Appendix 9, Bk. XVI., ch. 4.
[2] Appendix 11, Bk. V., ch. 1–2.

continues by saying that Alexander, in four days, reached the walled town of Memmium, near which a fountain existed, in a cavern, which discharged bitumen in great quantities, and that the bitumen for cementing the bricks of the wall of Babylon was probably derived from this spring.

This clue, surely, furnishes us with an exact indication of the route followed by Alexander from Arbela to Babylon. Initially, he kept bearing to the left; that is to say, instead of heading right-handed to the Tigris at Nineveh he took the other route over levels to Memmium, and, according to these topographical details, Memmium must coincide with the modern town of Kirkuk, which is in these times also four marches distant from Erbil. From Memmium (Kirkuk) Alexander must have traversed the road described on page 61, viz. via Tazah, Opis, Sittace, and Sippar to Babylon.

The mention also of the bitumen from the spring near Memmium being utilised for the construction of the wall of Babylon is of great interest. How would the material have been transported? Surely it would primarily have been floated down the Adhaim as far as the confluence with the Arfaf Canal, along which the rafts would have been towed to the basin above Nimrod's Dam. The next step in transportation would be to transfer the vessels to the ancient Dujail Canal, which flowed approximately parallel with the Median Wall, and from that waterway to carry the bitumen on pack-animals to all parts of the rampart which were at that particular time under construction. Again, if pitch could be *floated* down the Gyndes, might not the river be considered as *navigable?* Does not this deduction, then, dispose once and for all of Rawlinson's assertion that the Diyala must represent the Gyndes as it is the only other navigable stream after the lower Zab on the road between Sardis and Susa?

Now, as regards the fires mentioned by Strabo, which

are still in existence in the vicinity of Kirkuk; these can also be identified with the places reported by Pliny [1] always to be burning at Sittacene, on the borders of Persia; and incidentally, of course, the place described as resembling a fish-pond in the plain of Babylon is the ancient Is and modern Hit.

The next landmark mentioned by Strabo is the temple of the Goddess Anaea, followed by Sadracae, and the palace of Darius. Now, the palace of Darius is evidently identical with Ecbatana: in consequence, the temple of the Goddess Anaea and Sadracae must lie at points intermediate between the fires and Ecbatana, and these stations would also have been located on the Royal Road to Susa. It is possible that the forerunner of Kirkuk may have contained the temple of Anaea; but the position of Sadracae cannot be suggested. However, of one fact we may be certain, namely, that after leaving Kirkuk the Royal Road to Susa traversed the modern Bazian Pass and continued on through Sulaimaniyah. Is not this deduction confirmed by Herodotus,[2] who records that after leaving Armenia and entering the Matienian country, and passing the four stations situated in that district, Cissia is reached, where eleven stations and forty-two and a half parasangs bring the traveller to another navigable stream, the Choaspes, on the banks of which the city of Susa is built? Is it not also an evident fact that, on the Royal Road to Susa, *the Diyala River is never crossed at all?*—except, perhaps, at its source, where the size of the stream is of such insignificant proportions that it is not considered worthy of mention in the chronicle!

But harking back, for a moment, to Strabo's description, the account concludes with the statement that the passage across the Caprus is close to Seleucia and Babylon. It is palpable that some error must have

[1] Appendix 13, Bk. II., ch 110.
[2] Appendix 5, Bk. V., ch. 52.

'crept into the manuscript in this connection; for the Caprus has already been identified with the Lesser Zab.

Let us now turn to an examination of Pliny's report of this district and the country immediately to its south. That historian's record is somewhat involved, but perhaps certain passages became transposed in the original manuscripts. Pliny relates [1] that in Arabia (*i.e.* that part of Mesopotamia lying between the Tigris and the Euphrates to the north) were the peoples known as the Orei and the Mardani, and that joining up to these in the interior is an Arabian people called the Eldamani, and above them, upon the river Pallaconta, the town of Bura. Now, may we not accept this river as being identical with the Tharthar, which joined the Tigris near Tekrit? Topographically, its place in the narrative would point to this deduction as being the only possible solution of the problem. This portion of the terrain is unknown to the author; in consequence, the site of the town of Bura, which was located on its banks, cannot be conjectured. Pliny continues his description by informing us that next to Eldamani came the Arabian peoples known as Salmani, and then the Masei, followed by the Aloni, who joined up to the Gordyaei (Kurds), and that the river Zerbis flowed through the territory of the Aloni. The Zerbis is thus, evidently, the Lesser Zab. Still proceeding northwards, we have the Azones, the Silici, and the Orontes. Pliny then states that the towns of Gaugamela and Suë were located to the west of the territory of the Orontes. Now, is it a mere coincidence that no mention is made by Pliny of the existence of Arbela? Is it not probable that when referring to Gaugamela, Pliny in reality intended to indicate Arbela? The location of Suë, situated upon the rocks, should also be discoverable, as this allusion forms a precise topographical guide to its position. Pliny continues by narrating that beyond the Orontes

[1] Appendix 13, Bk. VI., ch. 30.

lay the territory of the Silici, through whose district ran the Lycus, which is to be identified, of course, with the Greater Zab. The next physical landmark to which reference is made is the Absithris, flowing south-east. The stream named would seem to be the affluent of the Greater Zab, now called the Ghazir Su, and any well-defined group of mounds in that neighbourhood might well be identified with the ancient city of Accobis. The position of the sites of the other four towns mentioned, viz. Diospage, Polytelia, Stratonice, and Anthermis, cannot be accurately determined, but we may conjecture with a great degree of probability that these communities flourished in the plain of Aturia, and that they were situated in close proximity, if not actually upon, the Royal Road between Nineveh and the foothills leading to Arbela.

Let us now turn to a consideration of the topography and various problems connected with the district of Messene.

The central feature is, without question, Nimrod's Dam. During what period of Babylonian history was this mighty engineering work accomplished, and to whose brilliant intuition may this gigantic hydraulic scheme be ascribed ? These two questions form problems of which the cuneiform inscriptions afford no clue. What necessity, then, caused the inception of this stupendous project in the brain of some ancient genius ? That is a query that can be surmised if not accurately gauged. May not the motive have been the eternal problem with which the engineer in Mesopotamia has, throughout the ages, always been faced, and which must perforce exist in the never-ending present and stretch out through the vista of years of the dim and distant future ? May not this vast hydraulic scheme have been occasioned by a sudden alteration in the bed of the river Tigris ? How does this conjecture fit in with the topography of the terrain ? Does not the so-called

Izhaqi depression represent an ancient channel of the Tigris? That is a fact that cannot be controverted. Examine the topography at its head. Is there not substantial evidence to show that at some period the Tigris broke away eastward and sought out for itself a new bed? And what would be the consequence of this diversion of the waters? Would it not imply stark ruin to the whole country? Would not the floods sweep away cities and hamlets in its irresistible advance seawards; and would not those communities on its erstwhile banks be equally threatened with extermination through drought? It must have been a case of Hobson's choice. Either the waters must once again be turned back into the parched and arid land which they had deserted, or else the population would of necessity have to face extermination, and the existing empire disintegration. It was a fight by primitive man against the rude forces of nature. Man won, as he always will, when it is a case of life and death struggle between masses of humanity and nature in her wildest moods. The first essential was a dam across the recently formed valley of the river. But such a work would be carried away at the first melting of the snows unless adequate safeguards were organised to carry off the huge volumes of water that would pour down from the mountains. Let us, then, examine this hydraulic scheme in detail. First, of what material was the dam constructed? Sir William Willcocks[1] tells us that Nimrod's Dam was an earthen barrage. Certainly all that remains of it above the present-day surface of the alluvial silt is composed of earth, but, on the other hand, every dam and embankment built by Nebuchadnezzar[2] was faced with earth piled up, and fixed on its inner side with a wall of burnt brick laid in bitumen.

[1] Appendix 19.

[2] Appendix 2, Inscrip. XIII., col. 2, 19 *et seq.*; Inscrip. XIX$_B$. col. 6, 60 *et seq.*; Inscrip. XX., col. 1, 66.

Setting aside the question whether a dam composed solely of earth would be of sufficient strength to withstand the pressure of water of a high Tigris flood, are there any indications on the actual ground that burnt brick was employed as the material for fixing the barrage within? Certainly such exist, for beyond the northern termination of the dam a whole square mile of country is dotted with the ruins of ancient kilns. Their existence demonstrates the fact that burnt brick was utilised in the main structure of the dam, and their abundance indicates that the volume of the output had to be such that the dam might be completed within the period of one "low-water" season.

The next point is—may we not assume that the dam was also furnished with a spill channel to allow the escape of the overflow? The very fact that Alexander sailed up the Tigris to Opis[1] is proof positive that, provided Nimrod's Dam was then in full operation, a certain flow of water found a passage down the main channel. Acknowledging the existence of a spill channel, from an engineering and defensive standpoint, in what part of the structure would it be located? On Map 2 its position has been placed in the centre, and as an aid to the defence of the dam from the east the waterway has been divided into two loops; but it should be clearly understood that this part of the topography is purely conjectural.

Now, the primary object of the dam was either to restore, or to turn the waters into the area formerly served by the previous Izhaqi depression. Time did not admit of an examination of this depression south of the Median Wall barrage which spanned it; but it is probable that it emptied into the Aqar Kuf basin. A detailed examination of its course can only confirm or refute this supposition. In what manner, then, was the district of Messene watered? It must have been irrigated, unquestionably, by the sixty-yard-broad canal

[1] Appendix 14, Bk. VII., ch. 7.

taking off the basin at the southern termination of the dam. Again the author was unable to obtain the leave or leisure to follow its bed down, but ancient geographical records must serve to supplement modern topographical research. Pliny reports [1] that one hundred and twenty-five miles above Babylonian Seleucia the Tigris passes round Apamea and then divides into two channels, one of which runs southward and flowing through Messene, runs towards Seleucia, while the other takes a turn to the north and passes through the plains of Cauchae, at the back of the district of Messene. Now, this southern branch cannot possibly represent any other waterway except this broad canal, the precursor of the later Dujail; and we may, then, accept the fact, without much fear of challenge, that it discharged into the Aqar Kuf basin, whence one outlet emptied into the Tigris near Seleucia. Xenophon [2] also mentions the existence of this canal in his narrative of events when a night-attack was expected on the Greek camp at Sittace. What, then, was its ancient name? In another passage, Pliny places it on record [3] that the Tigris surrounds Apamea, and that the city is also traversed by the waters of the Archoüs. Was the title of this ancient canal, then, the Archoüs? Negatively, also, if such was not the case, what waterway would the Archoüs represent? Circumstances point to the conclusion that in actual fact we may regard this canal as being termed, in Pliny's day, the Archoüs. Now, this very name surely has somewhat of a familiar ring? Can it be that the Archoüs of Pliny is identical with the Babylonian Araḫtu Canal? In other words, may there not have been a second outlet from the Aqar Kuf basin connecting with the Euphrates at Sippar? This conclusion opens up a vast field of possibilities, the basis of which is a continuous navigable waterway

[1] Appendix 13, Bk. VI., ch. 31.
[2] Appendix 5, Anab. I. (iv).
[3] Appendix 13, Bk. VI., ch. 31.

linking the heart of the Empire—Babylon—with the key to its very existence as such—Nimrod's Dam. Of the defence of this great life-giving artery we will speak anon. Let us in the meantime hark back to a discussion of the great hydraulic scheme focussing round Nimrod's Dam.

Firstly, it is quite evident that the spill-channel from the dam and the Archoüs Canal would not have furnished an adequate escape for the great volume of the Tigris at the height of the flood season. The construction of other overflow canals, therefore, would of necessity form a part and parcel of the general scheme. What of these escapes? On the north bank we have the great Nahrwān Canal. Now, Mr. Guy Le Strange has furnished us with a detailed description of this great artificial waterway, as gathered from the early Arab geographers.[1] The main feature is its division into three distinct and separate sections, the upper division being known as the "Cut of the Chosroes," and its inception is placed to the credit of the Sassanian kings. Now, does not this statement, and also the general account of its system, lead us to suppose that the canal was not dug, throughout its entire length, at one period of history? Its upper section is acknowledgedly the more ancient, and if it existed before the lower two divisions of the canal were excavated, then it follows that it must have emptied into and not crossed the bed of the Adhaim. We may, then, put forward the contention that the original function of the upper division was to transfer a portion of the flood-waters from the river above Nimrod's Dam to the Adhaim bed below the dam. The next part in the general hydraulic scheme would be the necessity for providing a channel for purposes of navigation from the basin above the barrage to the bed of the Tigris below the dam. The fact that the main artery of communication with Babylon took out at the southern

[1] Appendix 16.

extremity of the barrage precluded the possibility of the short navigation channel being cut on that bank. Its presence must therefore be sought for on the northern bank. The ancient Arfaf Canal, with its head at Al Kaim tower, must have formed the navigation channel past Nimrod's Dam, also discharging into the bed of the Adhaim, but down-stream of the Nahrwān flood-escape. Such would appear to be the details of the scheme on the northern bank. Let us next turn to a consideration of the flood-escapes from the right bank. Firstly, we have the Jali Canal, with its head near Tekrit, opening up into a series of basins as it flowed southwards. Next comes the canal termed Izhaqi, the head of which was probably situated in close proximity to that of the Jali, also expanding into extensive basins in its course southwards. In this connection, the reports of the Arab geographers are inaccurate as regards the original construction of this canal. Mr. Le Strange, on their authority, states [1] that opposite Dûr began the Ishâki Canal, which, making a short loop, rejoined the river again opposite Matîrah, and later on the same writer alludes to the Nahr-al-Ishâkî being dug by Ishak Ibn Ibrâhîm, Chief of Police to Mu'tasim, to irrigate the lands and plaisances of Samarra, on the west of the Tigris. However, in another passage Mr. Le Strange qualifies these reports by mentioning that the positions of all these places are fixed by the canals, some of them in ruin, also still existing, but about which nothing is known beyond their names. The whole essence of the case is that the entire system had been dug, had operated, and had fallen into desuetude centuries before the Arab geographers came to comment on them; their very names and, much more, their functions had sunk into oblivion. Ishak Ibn Ibrâhîm took the opportunity of clearing the accumulation of silt out of a very few miles of the upper reaches, either of the then disused Jali,

[1] Appendix 16, p. 808.

or the so-called Izhaqi Canal, more probably the former. But the statement that this latter-named canal was originally dug by Ishak Ibn Ibrâhîm is wholly refuted by the topographical details still to be seen and examined on the actual ground by any one who cares to do so. That the Arab geographers erred in their description of these ancient canals is amply borne out by the account of the Dujail. Mr. Le Strange quotes them [1] as saying that the Dujayl Canal had originally been a channel from the Euphrates to the Tigris, but that by the beginning of the 4th (10th) century its western part had become silted up, and its eastern and lower course was then kept clear by a new channel, taken from the Tigris, immediately below Kâdisîyah. The Dujayl—meaning "the little Tigris"—thus watered all the rich district of Maskin, lying to the north of West Baghdad, beyond Katrabbul. The later Dujayl was therefore a loop-canal of the Tigris, which it rejoined opposite 'Ukbara. This excerpt is of very particular interest; it demonstrates fully that the original existence of the Archoüs had been entirely forgotten. The first Dujayl canal is reported as having occupied the bed of the Saqlāwiyah Canal, and that when its intake at the Euphrates became silted up, its course was dug from below Kâdisîyah, rejoining the Tigris again opposite 'Ukbara.

We can now follow events clearly. When Nimrod's Dam became breached, the Archoüs dried up. Unless the dam were repaired it was impossible to reinstate the scheme in its previous operation. The only other plan for irrigation was to obtain water from the Euphrates by means of the Saqlāwiyah channel, which plan was put into effect. Silt in turn closed down this project, so that the ancient and long-disused bed of the Archoüs was again utilised, but *a new head was excavated some miles down-stream of the original intake at Nimrod's Dam.*

[1] Appendix 16, p. 305.

The course and extent of this later Dujayl was insignificant compared with the ancient Archoüs, and the existing Dujail Canal can be termed nothing more than a ditch.

But let us return to our theme. In addition to the Jali Canal and the mis-named Izhaqi, flood-water escape was effected also by means of the two "desert canals" that took off from Nimrod's Dam basin, just above the head of the Archoüs Canal. Thus, we have seven distinct canal systems distributing the flood-waters of the Tigris, from above Nimrod's Dam over the greater part of Upper Babylonia. But what an expenditure of labour must have been entailed in carrying to a successful issue this brilliantly-conceived hydraulic scheme. The final question that arises in this connection is—into what river system did the waters of the Jali, Ishaqi, and two desert canals empty? There are only two possible solutions to this problem. Either these four waterways must have discharged into the Aqar Kuf basin, or otherwise they must have flowed into the Euphrates. A detailed examination of the terrain can only determine which of these alternatives should be accepted as the correct interpretation, but two factors taken in conjunction should furnish us with a reliable guide whether the flood-waters of the Tigris flowed back eastwards, or whether the Euphrates received their volume. Firstly, traces of ancient canals have been observed, as indicated on Map 1, twenty-four miles S.S.W. of Nimrod's Dam, and it is palpable that these canals, by their relative positions and levels, could by no possible means have emanated from the Euphrates; secondly, does not Xenophon [1] record in the most emphatic manner that—

"in this plain are four canals derived from the river Tigris; being each one hundred feet in breadth, and deep enough for barges laden with corn to sail therein;

[1] Appendix 6, Anab. 11, VII.

they fall into the Euphrates, and are distant from one another one parasang, having bridges over them."

Yet every modern commentator, almost without exception, has ridiculed this plain statement of fact as denoted by Xenophon, asserting that a general of such great mental calibre and personality actually blundered atrociously in mistaking the direction of flow of these four canals; whereas these very critics would have Xenophon describe canals which had not even been excavated at the time he marched through the country!

Well, such was the result of man's fight against the rugged forces of nature. As we said before—man triumphed—but for how long? The clue to that problem is furnished by Ammianus.[1] During the supremacy of the Roman Empire, nature was once more given the upper hand, and since that fateful day when Nimrod's Dam was voluntarily breached, the Tigris has never again been tamed. Annually its red silt-laden floods have either threatened the country with destruction, or have actually taken heavy toll of life and property, when they have burst their bounds.

But let us attempt to trace topographically the result of this cataclysm. It is evident from the ground that the breach in Nimrod's Dam occurred at its northern termination. The terrain discloses one fact which speaks volumes—the earthen regulators at the heads of the two "desert" canals, are still to be seen blocking the intakes of these waterways. We may conjecture, then, that Nimrod's Dam, although partially breached, had to bear the unrelieved pressure of a Tigris flood. The result was a foregone conclusion. No work of man could withstand forces of such prodigious latent power. Nimrod's Dam went with a crash at its weakest spot, probably the junction of its northern termination with the left bank of the basin. The ground discloses the fact that the canal system to the north has been partially

[1] Appendix 15, Bk. XXV., ch. 6, 8.

washed away. The effect of this disaster is not difficult to follow. The pent-up waters passing through the northern breach rushed madly onwards, scouring out a new channel until they reached the bed of the Adhaim River. Here the first wall of water must have separated, part flowing down its channel, washing away both banks, until it found an outlet into its old bed through the two lateral channels indicated on the map, above and below Tel Abir. The other portion surged up the bed of the Adhaim and burst over its left bank, sweeping on until it found its erstwhile channel many miles farther down-stream. Are not these details confirmed topographically? Note how broad is the bed of the Adhaim from the vicinity of Sinījah until it reaches the bifurcation of the second lateral depression, and how after this point it suddenly narrows down to what must have been its original breadth. For many years after the debacle the river must have flowed down all three channels; then gradually the old western channel ceased to carry water and the Arab geographers[1] place it on record how law-suits were instituted owing to the change of bed, and how fresh canals were dug to bring the life-giving stream to the ancient cities, notably the canal of Al Alth.

Such, then, is the exposition of the many problems presented by the topography of the district of Messene as it has occurred to the author; let our next step be to attempt to identify as many of the ancient cities as possible whose names are recorded by the early historians.

Pliny tells us[2] that one hundred and twenty-five miles above Babylonian Seleucia the Tigris passes round Apamea, a town of Messene, and in another later passage this historian describes Apamea as being surrounded by the Tigris and traversed by the waters of the Archoüs. Which of the ancient mounds, then, will coincide geographically with this description? Surely Harba is

[1] Appendix 16, ch. 3.
[2] Appendix 13, Bk. VI., ch. 31.

indicated as the site of Apamea, and, in addition, is not this conjecture borne out phonetically, for may not Harba be an abreviation of Apa[mea] ? Then the other city on the west is Antiochia, called Arabis, located between the two rivers Tigris and Tornadotus. Does not the position of Tel Abir answer precisely to these topographical details ? Next, on the east, are situated the two cities of Sittace and Sabdata. Might we not identify Sabdata with the chain of connected mounds extending for a length of five miles just N.E. of Baghdad, termed Suddurah or Saddah ? What of Sittace ? Xenophon tells us it was situated fifteen stadia back from the Tigris.[1] Could not we place the ruins indicated as Tel Kasr and its vicinity in the neighbourhood of Tazi railway station as those of ancient Sittace ? This inference would seem to be confirmed phonetically, for might not Sittace have become abreviated into [Sit] Tazi ? In any event, if this claim is not supported, then the critic should be prepared to nominate another set of ruins as being more likely to represent the site of Sittace.

Then, again, Pliny informs us that the country on the banks of the Tigris is called Parapotamia, and that in the district of Messene there was a town called Dabithae. Could we not identify Dhahab, on the opposite side of the Adhaim depression to Tel Abir, as the Dabithae of Pliny ? Turning to the voyage of Alexander up the Tigris from Susa, Quintus Curtius Rufus narrates[2] that the king repeatedly visited several cities of the central provinces. Moving from Susa across the Tigris he encamped successively at Sittace, at Carrhae, at Sambana, and at Celonae. We have, by the insertion of this one word, *successively*, in the manuscript, a very helpful topographical guide to the positioning of Carrhae and Sambana. Can we identify Sambana with the modern Samarrah, and may not the Zumban of the Cyrus Cylinder,[3] on the farther

[1] Appendix 6, Anab. 11, IV. [2] Appendix 11, Bk. X., ch. 4.
[3] Appendix 3, line 31.

bank of the Tigris, represent the original city founded on this site? If Sambana, then, coincides with the present Samarrah, Carrhae must of necessity lie between Sambana and Sittace. Can we place Carrhae as represented by the modern Kâdasîyah? If so, may not the Agade mentioned in conjunction with Zumban in the Cyrus Cylinder also be identical with Carrhae, *i.e.* modern Kâdasîyah?

Next we come to the question of the positioning of Celonae. We know that it lay on the road to Ecbatana. We have already followed Alexander's route (page 61) via Tazah and Kirkuk, the Bazian Pass and Sulaimaniyah. Would it be feasible to put forward the claim that Celonae is represented by Sulaimaniyah? The suggestion is not an impossible one, as Quintus Curtius relates that after leaving Celonae Alexander entered Bagistames (Behistun), a country of pleasant orchards, and this note would point to the location of Celonae as being well up on the hills on the borders of Media.

Let us now consider the mounds below Nimrod's Dam, whose identification has not been determined, in order to ascertain whether their positioning would correspond topographically with the various notices quoted on page 11. The first mound of importance is Jibbārăh, and four miles east Tel Musayeh rises boldly from the plain with its scattered group of mounds to the north. Is it possible that either of these ruined sites represents ancient Akšah. Tel Musayeh stands on the northern bank of an ancient bed of the Tigris. An inspection of the locality led the present writer to believe that this channel was of greater age than the depression immediately to its south. It is quite possible that prior to the construction of Nimrod's Dam the River Tigris flowed both in this bed at Musayeh and also in the Izhaqi depression. Such a conjecture is, however, pure supposition, and a more detailed examination of this ancient bed might lead to a better elucidation of the problem.

In any event, scientific excavation of these two mounds will afford the only sure means of discovering their identity; that neither of them represent the Babylonian Upê and the Greek Opis would seem positive, for, though each was probably at one time situated on the Tigris, neither can be taken as ever having flourished on the Physcus of Xenophon. The mound of Al Alth is mentioned by the Arab geographers. Then came the isolated mounds of Jafur, Manjūr, Shaikhān, and Atraifān, and these are situated neither on the Tigris nor on the Physcus, and their identification with Upê or Opis can be ruled out without further discussion.

At this stage it may be expedient to study the campaign of Senacherib to the Persian Gulf, and of Cyrus the Great, when he conquered Babylon, as it may be possible to obtain from a brief review of these expeditions still more definite topographical evidence regarding the position of Opis. First let us examine in detail the expedition of Senacherib to the Persian Gulf. This monarch, in his Bull Inscription No. 2,[1] places it on record that he caused men of the Hittite land, the conquest of his bow, to dwell in Nineveh, and that they built skilfully mighty ships, the work of their land. Then the narrative continues by stating that orders were issued to sailors of Tyre and Sidon and from the land of the Ionians, and that in the Tigris they descended on dry land laboriously with the fleet to Opis.

Now, owing to the velocity of the current during the flood season, the transportation of the ships during those months would have been fraught with far too great risk to warrant the adoption of such a plan. It may be safely assumed, then, that the flotilla was conveyed down the Tigris at a time when the river was at its lowest. Owing to the numerous shallows, and more especially by reason of the rapids at the Jabal Hamrīn gorge, such a process must have been extremely laborious, and the majority

[1] Appendix 1.

of the crew of each ship would of necessity have been obliged to march along the shore, guiding and towing their vessel with ropes. In due course the fleet would have been assembled in the basin above Nimrod's Dam. But Senacherib tells us most distinctly that his flotilla went to Opis, and Nebuchadnezzar also[1] informs us Opis lay down-stream of this Opis—Sippar rampart.

Therefore, it is evident that Senacherib's fleet must have been convoyed past Nimrod's Dam in order to reach Opis. In what manner was this operation performed? Surely through the navigation canal mentioned on page 73, *i.e.* the ancient Arfaf Canal. And where would the flotilla have debouched? Equally assuredly at the city represented by the Tel Abir group.

Now, there must have been some clear motive for assembling the fleet at Opis. We know that under the Macedonian Empire Opis was a mart for the surrounding country. The fleet had endured an arduous passage down the Tigris, through a desert country. Is it not natural to suppose, therefore, that their provisions had become exhausted, and that the *raison d'être* of the concentration at Opis was for the purpose of re-victualling before proceeding farther on their voyage to the Persian Gulf. After leaving Opis, what course did the fleet pursue? Did the flotilla sail placidly down the Tigris to the vicinity of modern Baghdad as some present-day commentators would have us believe? Some three years ago the author commanded the section of the line of communication from Baghdad to Samarrah. It came within his personal knowledge that in the month of January a motor launch drawing less than three feet of water was unable to make Baghdad from Samarrah, owing to the shallows and mud-flats. What, then, must have been the navigable condition of the Tigris bed when Nimrod's Dam was in full operation, and when the ancient Archoüs Canal was drawing off almost as great

[1] Appendix 2, Inscrip. XIX., B. col. 6, line 68.

a volume of water as was being discharged by the river into the basin above Nimrod's Dam? During the low water season, then, is it not credible to suppose that the Tigris below Nimrod's Dam was not practicable for ships of any size or draught. Further, have we not proof of a very definite nature that at the time of Alexander's conquest of Babylonia the Tigris, from Opis to the sea, was not used at all for purposes of navigation? for Arrian[1] tells us that Alexander first sailed down the river Eulaeus to the sea, and thence along the Persian Gulf and up the Tigris to his camp, where Hephaestion, with the forces under his command, waited his arrival. Arrian continues by relating that from this camp Alexander steered his course to Opis, a city on the Tigris, and that he commanded all the weirs, and other impediments which he met with, to be pulled up, and the channel to be cleared. Arrian tells us that these weirs were put down by the Persians, who were unskilled in maritime affairs, to render the navigation of that river so difficult as to hinder any enemy's fleet from invading them that way. Arrian adds that Alexander looked upon them as the contrivance of cowards, and, as they were little hindrance to him, knowing they would be of no use, he ordered them to be entirely cleared away and the river laid open.

Critics may bring forward the argument that Arrian distinctly records the fact that these obstructions to the navigation of the Tigris below Opis were placed in the channel by the Persians, and consequently that the deduction that in Senacherib's reign the river was not navigable will not be sustained. The answer to this contention is that if in effect the Tigris below Opis *was* navigable, then why did not Senacherib sail down the Tigris to the Persian Gulf instead of transferring his flotilla to the Euphrates?[2]

Let us examine, then, the plan which Senacherib,

[1] Appendix 14, Bk. VII., ch. 7. [2] Appendix 1.

in his inscription, tells us that he actually put into execution, and make an attempt to piece together topographically the details of the remainder of the voyage as far as Babylon. Senacherib informs us that from Opis the ships were transported by land, and that they were drawn on rollers (?) as far as [the city (?) U.....] and placed in the Arahtu Canal.

Now, what course would any admiral of a fleet elect to pursue under conditions of navigation as then existed ? Would he not, after having rationed his ships at Opis, retransfer them through the ancient Arfaf Canal to the basin above Nimrod's Dam, whence they would have entered the Archoüs Canal and thus been transported by land, not *overland*, to the Aqar Kuf depression ? Now, it is a well-known fact, that when any silt-laden stream or canal discharges into a lake, it forms at its exit a bar of soft mud. This very feature is well demonstrated at the present day ; where one of the Euphrates channels below Beni Said empties into the Hamar Lake a bar has been formed covered by such a shallow depth of water that an ordinary dug-out boat has the greatest difficulty in negotiating this natural obstacle. We may be sure, then, that a similar bar existed in Senacherib's time at the point where the Anchoüs discharged into the Aqar Kuf depression. What would prove the most expedient method of transporting the fleet over this bar ? Would it not be far the most efficient plan, in fact the only feasible one, to place logs of wood in the fairway, and drag the ships over them, thus preventing the vessels from becoming hopelessly embedded in the mud ? Does not Senacherib record in his inscription that this scheme was in fact put into effect ?

Next he informs us that the flotilla was placed in the Arahtu Canal. Could we not infer from this statement that the head of the Arahtu Canal took out of the Aqar Kuf basin ? Can we produce any historical evidence that would tend to confirm this conjecture ? Pliny

relates [1] that there are writers who say that the Euphrates was drawn off by an artificial channel by the Governor Gobares, at the point where he stated previously that it branched off. Pliny continues with the information that the Assyrians universally call this river by the name of Narmalcha, which signifies the "royal river." Pliny adds that at the point where its waters divide, there was in former times a very large city, called Agranis, which the Persae had destroyed.

In another passage, Pliny narrates that besides Babylon, Seleucia, Ctesiphon, and Vologesocerta, there are still the following towns in Mesopotamia: Hipparenum, rendered famous, like Babylon, by the learning of the Chaldei, and situate near the river Narraga, which falls into the Narroga, from which a city so called has taken its name. Pliny continues by saying that the Persae destroyed the walls of Hipparenum.

Now, the Narmalcha is undoubtedly synonymous with the Nahr Malcha; and in this case Narraga would represent Nahr Araga, and Narroga would be a corruption of Nahr Aroga. The position of the Nahr Malcha cannot be questioned; it branched off at Sippar and flowed eastwards towards Seleucia on the Tigris. The identification of Hipparenum with Sippar (modern Abu Habbah) is obvious, and Agranis, similarly, would form the Greek rendering for the ancient Agade. At Sippar and Akkad, then, besides the Nahr Malcha running from west to east, we have another canal, Araga, flowing into the Aroga. Should we be very wide of the mark, then, if we place the Araga flowing from the Aqar Kuf basin to Sippar, and the Aroga from Sippar to Babylon?

Again, Ammianus Marcellinus [2] records that the troops of the Emperor Julian advanced to the village of Macepracta, where were seen traces of half-destroyed walls, which were said to have formerly been of great extent for

[1] Appendix 13, Bk. VI., ch. 30.
[2] Appendix 15, Bk. XXIV., 22.

the protection of Assyria from foreign invasion. The historian adds that at the village of Macepracta part of the river is drawn off in large canals to the interior districts of Babylonia for the service of the surrounding country and cities, and that another canal by the name of Narmalcha, which is translated "the river of kings," passes by Ctesiphon. Now, according to Nebuchadnezzar, his wall from the Tigris above Opis terminated on the Euphrates at Sippar. Historically, therefore, Macepracta would represent Sippar; topographically, also, the identity is established, and in addition phonetically—for what is Macepracta but [Ma]Sippar-Agade? Once more we have ample proof of a system of canals crossing at Sippar.

Would not the deductions tabulated above tend to represent a more reasonable view of the voyage of Senacherib's fleet from Nineveh to Babylon than the theory propounded that the ships were dragged over the desert on rollers? If the former contention is accepted, then are we not in a position to make a very shrewd guess as to the location of Opis?

Let us next study the campaign of Cyrus the Great, when he shattered the Neo-Babylonian army, in so far as it relates to the location of Opis.

The Nabonidus Chronicle [1] informs us that in the ninth year of the reign of the king, the son of the king, *i.e.* Belshazzar, the lords and the army were in Akkad, and that in the month Nisan, Cyrus, the king of Persia, called his army together and crossed the Tigris below Arbela, and engaged in an expedition against some king which he slew, and garrisoned his capital and stayed there. No mention is made of Cyrus again till the seventeenth year of the reign of Nabonidus, when it is recorded [2] that in the month Tammuz, Cyrus, at Upê, on the bank of the Tigris, did battle with the army of Akkad, and that he conquered

[1] Appendix 4, col. 2, lines 9, 10 and 15.
[2] *Ibid.* col. 3, line 12.

the inhabitants of Akkad. The Clay Cylinder of Cyrus the Great,[1] however, merely states that without a struggle or combat Marduk allowed Cyrus to enter Babylon. Xenophon's Cyropaedia is also silent about any battle having been fought at Opis, except that in his exhortation to his officers prior to his night advance into the heart of Babylon, Cyrus is recorded as having delivered the following counsel :—

" The river, my friends, has yielded us a passage into the city ; and let us boldly enter, fearing nothing within, but considering that these people on whom we are now going to fall are the same that we defeated when they had allies with them, and were all awake, sober, armed, and in order."

Beyond this allusion to a battle having been fought previously, Xenophon simply records that Cyrus set forward from Sardis, leaving there a numerous garrison of infantry, corroborating in this connection the passage in the Nabonidus Chronicle. The evidence may appear on the surface somewhat flimsy for the purpose of building up a correct conception of the initial stages of this decisive campaign, but a closer study may tend to reveal many important points.

Firstly, we are told that six years previous to the battle of Opis, Cyrus, after capturing Ecbatana, crossed the Tigris below Arbela and engaged in an expedition against some king.[2] Xenophon contributes the information that Cyrus set forward from Sardis for the conquest of Babylon. We can assume, then, that Cyrus took the Royal Road from Sardis to Susa, certainly as far as the right bank of the Tigris. On arrival there, did he march down the right bank, or did he cross the river ? This question can be answered positively from two distinct sources. Firstly, the similarity between the campaigns of Cyrus against Nabonidus, and Antiochus against

[1] Appendix 3, line 17.
[2] Appendix 7, Bk. VII., ch. 5, 20.

Molon are most marked, as far as the march to contact is concerned. Polybius[1] furnishes us with a very vivid description of the difficulties of the route along the western bank of the Tigris, and of special moment is his account of the impossibility of further progress being effected in the event of the Royal Camp being previously occupied by the enemy. Now, there can be no question that the Royal Camp referred to by Polybius is the defensive system described in Chap. 2. We can gather from the Nabonidus Chronicle that at the time of Cyrus' advance the Royal Camp was occupied by Belshazzar and his army. It is obvious that the enormous defensive strength of the Royal Camp, which must have been fully known to Cyrus, combined with the impossibility of provisioning his host of warriors during the six days' desert march, would have caused an advance along the right bank of the Tigris to be attended with inevitable ruin.

Secondly, Herodotus records[2] that Cyrus on his way to Babylon came to the banks of the Gyndes. We have already identified the Gyndes with the present-day Adhaim River, so we know that Cyrus marched via Erbil and Kirkuk.

Then follows the description of the dispersion of the Gyndes into three hundred and sixty channels by Cyrus, the elucidation of which problem has raised a veritable mountain of controversy. Yet the true explanation would seem to be a very orthodox solution of an equally ordinary military problem met with in normal warfare.

Now, the immense size of Cyrus' army is exemplified both in the Clay Cylinder[3] and by Xenophon in his Cyropaedia.[4] Is it not patent that Cyrus dispersed the Gyndes (whether into three hundred and sixty channels or not is quite immaterial) with the simple object of

[1] Appendix 8, Bk V., ch. 5.
[2] Appendix 5, Bk. I., ch. 188–189.
[3] Appendix 3, line 16.
[4] Appendix 7, Bk. III., ch. 4.

ensuring an adequate water supply for his large collection of forces, thus enabling them to operate on a wide front. One glance at the map will be sufficient to show that unless water could be conveyed to the troops at their battle stations on the east of the Tigris below Nimrod's Dam, the whole vast army would have been forced to encamp on the banks of the Gyndes. It is hardly necessary to remark that with such a distribution of his host forced upon him by circumstances, Cyrus' chance of gaining a victory in a fair fight would have been infinitesimal. It was of paramount importance, therefore, that, before attacking Belshazzar in his heavily fortified position, a sufficiency of water should be ensured to every part of his battle-line.

Now, up to this point the evidence regarding the dispersion of the Gyndes is wholly hearsay. Is there any tangible proof on the actual ground that in reality the waters of the present-day Adhaim were, at any period, dispersed in a manner which would coincide with the requirements of a huge army operating on the east of the Tigris, opposite the northern extremity of Nimrod's Dam? The terrain in this locality bears unmistakable traces, in the form of a network of ancient canals leading from the Adhaim southwards towards the Tigris, and taking off down-stream of the Jabal Hamrīn range, that at some period of history such a dispersion was actually put into effect. By whom else, then, was this hydraulic scheme executed unless by Cyrus the Great?

From a study of this portion of Cyrus the Great's campaign against Nabonidus cannot we infer that Opis was situated in the vicinity of the confluence of the Gyndes and Tigris?

Passing in review, then, the topographical positionings of the site of ancient Opis as deduced from the records of the cuneiform inscriptions, and the works of the classical writers, what group of mounds would answer to the description of being located on the Tigris and on the

Physcus, and, if Pliny's Antiochia Arabis can be accepted as the successor of Opis, between the Tigris and the Tornadotus? Surely there is only one site that can satisfy these data, and that is Tel Abir.

CHAPTER V

THE MARCH OF THE TEN THOUSAND FROM THE BABYLONIAN GATES TO OPIS

THE object of this chapter is an endeavour to follow accurately the footsteps of the Ten Thousand from the Babylonian Gates to the ancient city of Opis. This phase of the expedition of Cyrus has given rise to the expression of such a mass of conflicting opinions on the part of previous commentators, that the present writer has decided to discard all such deductions *in toto*, and to start afresh from bedrock—that is, from the narrative of the march as related by Xenophon himself. Now, this narrative forms a lengthy record; it will therefore assist us to obtain a more lucid grasp of the passage of events as they occurred, if we divide the study of the march into two distinct sections, the first dealing with the incidents up to and including the battle of Cunaxa, the second section from the battlefield of Cunaxa as far as Opis.[1]

Now, there is one point in this narrative that cannot fail to strike the observant reader. Between the Babylonian Gates and the battlefield of Cunaxa, no mention whatsoever is made of the army of Cyrus having marched through the Median Wall. It cannot be denied that Xenophon is precise to a degree in his relation of the physical features passed in this phase of the expedition. Is it not inconceivable that, if the army of Cyrus *had* entered the province of Babylon through a gate in the Median Wall, the fact would have been omitted from the record? May we not assume, then, with a very great

[1] Appendix 6.

measure of certainty that the south-western extremity of the Median Wall did not rest on the left bank of the Euphrates upstream of the battlefield of Cunaxa? It is the erroneous supposition that the Median Wall carried on in a direct line from its eastern termination on the Tigris till it struck the Euphrates at the head of the present Saqlāwiyah Canal, that has misled, without exception, every previous commentator. It is obvious that if the Euphrates extremity of the Median Wall did not lie above Cunaxa, then the Wall at some point must have bent southwards, unless, of course, the site of the battlefield of Cunaxa is found to be located upstream of the intake of the existing Saqlāwiyah Canal. Let this fact be constantly borne in mind throughout our subsequent observations.

Now, in Xenophon's description of this section of the march the two landmarks that hold out the greatest promise of successful identification are undoubtedly the Babylonian Gates and the battlefield of Cunaxa. It is evident, therefore, that if we know the distance that separates these two localities, and provided that one of the two sites has been determined, we should be able to place our finger on the map within a few miles of the position of the other object. Our first step will, therefore, be to ascertain the number of miles traversed by Cyrus' army from the Gates to Cunaxa. In this respect an independent compilation may perhaps be preferable in order to disarm any possible suspicion of bias. The following table is quoted *verbatim* from the geographical dissertation accompanying the translation of the Anabasis from which the appendix has been taken :—

	Days.	Parasangs.
From Pylae, in Babylonia	3	12
March in order of battle	1	3
March with less circumspection	1	suppose 3
It is plain from what is said concerning the retreat of Ariaeus after the battle, that upon the day of battle they had marched ...		4

This gives us a total of 22 parasangs. Calculating a parasang as representing $2\frac{3}{4}$ English miles, we have the distance from the Gates to Cunaxa as $60\frac{1}{2}$ English miles.

The next question that naturally arises is—which of the two points shall we endeavour primarily to locate, the Gates or Cunaxa? There is little utility in prosecuting a quest for anything until we know the nature of the object for which we are searching! Let us first examine the Gates. What description of feature should we expect to meet, either on the actual ground or on the map, which we could recognise as Xenophon's *Pylae?* Now, the crux of the whole problem is—what form of topographical feature would strike *Xenophon* as corresponding to *his* conception of *pylae?* Is there any method by which this point can be determined? The student of Xenophon will remember that Cyrus' army debouched on to the plains of Syria through the Cilician Gates. Can we, then, gain any knowledge from a study of the Cilician Gates? The following extract is culled from Rev. Watson's translation, together with a foot-note by the same author:—

"4. Hence he [Cyrus] proceeded, one day's march, five parasangs, to the Gates of Cilicia and Syria. These were two fortresses; of the part within them, towards Cilicia, Syennesis and a guard of Cilicians had the charge; the part without, towards Syria, a garrison of the King's soldiers was reported to occupy. Between the two runs a river, called Carsus, a plethrum in breadth. The whole space between the fortresses was three stadia; and it was impossible to pass it by force; for the passage was very narrow, the walls reached down to the sea, and above were inaccessible rocks. At each of the fortresses were gates. 5. It was on account of this passage that Cyrus had sent for the fleet, that he might disembark heavy armed troops within and without the Gates, who might force a passage through the enemy, if they still kept guard at the Syrian Gates; a post which he expected

Abrocomas would hold, as he had under his command a numerous army."

Note by Author of Translation.

"[Ἦσαν δὲ ταῦτα δύο τείχη]. As the fem. πύλαι precedes, and as the *gates* were not properly the τείχη, but the space between them, Weiske conjectures ἦσαν δὲ ἐνταῦθα, κ.τ.λ., which Kuhner and others approve, but have not admitted into the text. Kuhner interprets τείχη 'Castella,' and I have followed him. When Xenophon speaks, a little below, of τείχη εἰς τὴν θάλατταν καθήκοντα, he seems to mean *walls* attached to the fortress nearest to the sea. So when he says that at *each of the fortresses*, ἐπὶ τοῖς τείχεσιν ἀμφοτέροις *were gates*, he appears to signify that these were gates in the walls attached to each of the fortresses. 'At a distance of about six hundred yards, corresponding with the three stadia of Xenophon, are the ruins of a wall, which can be traced amid a dense shrubbery, from the mountains down to the sea-shore, where it terminates in a round tower.' *Ainsworth*, p. 59."

Herodotus also furnishes a brief account of the Cilician Gates, in which he relates that the road passes through two sets of gates, at each of which a guard was posted.[1] And in this connection a comparison with the description of the Gates of Caucasus by Pliny[2] would prove instructive.

Now, some commentators have contended that the Babylonian Gates will take the form of a defile, either a gorge through which the Euphrates has cut a channel—or a narrow passage in the hilly desert through which the road passes. Such a supposition, however, is not tenable, as the following passage from Rev. Watson's translation will demonstrate:—

"Cyrus, with the rest of the army, proceeded through Cappadocia, four days' march, a distance of twenty-five parasangs to Dana, a populous, large, and wealthy city.

[1] Appendix 5, Bk. I., ch. 5, 52.
[2] Appendix 13, Bk. VI., ch. 12, 11.

Here he stayed three days; in the course of which he put to death a Persian, named Megaphernes, a wearer of the royal purple, and a certain other person in power, one of the provincial governors having accused them of conspiring against him.

"21. They then made an attempt to enter Cilicia; but the sole entrance was a road broad enough only for a single carriage, very steep and impracticable for an army to pass, if any one opposed them. Syennesis besides, was said to be stationed on the heights, guarding the defile; on which account Cyrus halted for a day in the plain."

Now, here we are presented with a picture of the narrowest of defiles imaginable, the road being of sufficient breadth to accommodate one carriage; yet Xenophon did not designate this defile as *pylae*. No; it should be clear from the first excerpt that Xenophon's conception of the term *pylae* was a barrier, either of natural rock or artificially constructed, *across* a defile, with possibly gates placed in the barrier itself.

In our search for the Babylonian Gates, then, we may expect to find either a natural rocky barrier or the traces of an ancient wall blocking the passage between the Euphrates and the elevated plateau of the interior.

Let us next turn our attention to the means by which we can best recognise the battlefield of Cunaxa. The following passage is taken from Rev. Watson's translation, together with a foot-note by that author:—

"11. The Barbarians, on the other hand, did not await their [the Greeks] onset, but fled sooner than at first; and the Greeks pursued them as far as a certain village, where they halted; 12. for above the village was a hill, upon which the King's troops had checked their flight."

Foot-note.—"This [village] is generally supposed to have been Cunaxa, where, according to Plutarch, the battle was fought. *Ainsworth*, p. 244, identifies Cunaxa with Imséy'ab, a place 36 miles north of Babylon."

So far so good; we have as a guide a village with a

hill above it, the name of the village being regarded as Cunaxa. Now, by whom was the battle called Cunaxa? The name is certainly not attributable to Xenophon, as the word Cunaxa is not to be found in the Anabasis at all. Plutarch is responsible for the title, and in his life of Artaxerxes he places the distance as 500 stadia from Babylon. We are now faced with a very marked discrepancy in figures. Xenophon tells us that "from the field of battle to Babylon it was computed there were three thousand and sixty stadia." All previous commentators have inclined to the belief that the figure 3060 must be taken as a corruption for 360, and Rennell informs us that a M. Larcher found the figure 360 in a copy of the late King of France's library, and also in the Eton MS.

Now, which of these figures are we to accept as authoritative? Xenophon himself is very particular in remarking that the distance as stated by him was only *computed*. There should be no reflection, then, on Xenophon's reliability as a historian if his estimate is discarded altogether and preference extended to the record of 500 stadia as alleged by Plutarch. We are now presented with another difficulty. Unfortunately, the length of a stadium was not universal. The standard of Strabo's scale gave 700 stadia to a degree, or approximately 30 stadia to 3 English miles. In Xenophon's itinerary 30 stadia are equivalent to a parasang, or about 2¾ English miles. However, as we have decided not to adopt Xenophon's statement of distance between Cunaxa and Babylon, we should also reject his standard of measurement, and substitute that of 606¾ feet, which is the length generally acknowledged of the Greek stade. If we are to accept Plutarch's figure, then, of 500 stadia at this standard, we should find Cunaxa about 57½ miles above Babylon, and our calculations have already shown that the site of the battlefield should lie approximately 60 miles below the Gates.

The next question to be decided is, whether we should first endeavour to obtain an indication of the "Gates," or whether our initial effort will be devoted to a search for the potential battlefield of Cunaxa. Now, is it not putting rather a premium on failure if we start out on a quest when we cannot say positively whether our goal is the name of a village or a hill, or some other feature? Let us, then, trace on the map the line of march of Cyrus' army down the Euphrates, and throw ourselves into the arms of the Goddess of Fortune. At what point shall we embark on our venture? Now, if the distances as recorded by Xenophon and Plutarch are accurate, the Gates should be found about 118 miles upstream of Babylon. Then, again, the modern town of Hit is about 130 or 140 miles by direct road from Hillah. If, therefore, we institute our investigation by commencing at a point opposite Hit we should have sufficient margin in hand for safety. Let us, then, take up our map and cut in on Xenophon's route on the left bank of the Euphrates at Hit.

What do we find? Eighteen miles along the track is printed the following notice: *Barrier of rock here two feet high.* Why, this barrier must represent the Babylonian Gates of Xenophon! If, in reality, we *have* located the Gates, then Cunaxa should lie a little over sixty miles farther down-stream. Let us lay off the distance. The finger rests on the name of a hill, Tel Aqar Kan'sah, 182 feet above sea-level, and 32 metres in height above the surrounding plain. There also at its foot is the site of an ancient village which might correspond to the hamlet mentioned by Xenophon—Tel Aidah. But wait—there is one more test to be applied. How far is Tel Aqar Kanīsah from Babylon? Let us measure the distance carefully off on the map—57½ miles from Tel Kaṣr, almost to a furlong. If the identity of the Babylonian Gates, and the hill on which the Greeks finally put to flight the hordes of Artaxerxes, be acknow-

ledged, then let us endeavour to locate as accurately as possible the topographical features mentioned by Xenophon. Let us follow incident by incident the march of the Ten Thousand from the execution of Orontes up to that fateful day on which Cyrus the Younger met his doom on the battlefield of Cunaxa, at the very moment when a glorious victory and a vast Empire lay within his grasp. On what gossamer threads hang the outcome of momentous events. The whole course of history is changed by the javelin-thrust of an obscure individual!

Xenophon's narrative tells us that from the Gates Cyrus marched for three days, traversing twelve parasangs, an equivalent of thirty-three miles, and at midnight he reviewed his whole army, both Greeks and Barbarians, in a plain. According to this computation, therefore, the grand parade of Cyrus' entire host was held somewhere in the vicinity of the head of the existing Saqlāwiyah Canal. The next day's march was registered as 8 parasangs, or 8¼ miles. In the middle of this march the army encountered the trench, 30 feet broad and 18 feet deep, which extended 12 parasangs upwards, traversing the plain as far as the Wall of Media. Our calculations will locate the Euphrates termination of this trench somewhere in the neighbourhood of the present-day Saqlāwiyah regulator, which would also represent the narrow pass through which the army of Cyrus marched. Xenophon goes on to relate that in this plain were the four canals derived from the Tigris, and falling into the Euphrates each a parasang apart and 100 feet in breadth. The next incident in the narrative that calls for observation is the question of these four Tigris canals. This problem is one that only a detailed exploration of the actual terrain can definitely settle, but it has already been pointed out that the Jali Canal is reported by the Arabs as having flowed into the Euphrates near Ramadi, and it would seem that the

Izhaqi Canal and the two " desert " canals comprise the other three canals mentioned by Xenophon. There is one point, however, that is relevant to the issue. Acting on the supposition that Xenophon blundered, and that the canals actually took out of the Euphrates and fell into the Tigris, would he have stated that this trench, by way of fortification, extended *upwards* as far as the Wall of Media ? Does not the employment of this adverb furnish us with a clear indication that the canals flowed downwards into the Euphrates ? After this digression, let us continue on the steps of Cyrus' army. That day's march was 8¼ miles ; the army, therefore, must have halted that night close to where Fallujah now stands. The length of the next day's march is not mentioned by Xenophon, but commentators have placed it as three parasangs. This assumption would place Cyrus' next camp just short of Ridhwānīya Post, or a mile above the intake of the old Nahr Melcha, and would leave about eleven miles for the march and the battle up to the hill of Aqar Kanīsah, which corresponds identically with the distance as computed in our table.

We have now completed our review of this stage of Cyrus' expedition ; the next question that arises is, should we endeavour to follow on the map the actual incidents, marking the various phases of the battle of Cunaxa ? From the point of view of the student of military history, the temptation to do so is extremely strong, but, on further consideration, such a step at the present juncture would not seem expedient. It would be advisable to allow this volume primarily to pass through the furnace of criticism ; and, if the general trend of opinion is such that the identity of the actual battlefield has been definitely established, then would be the time to draw up plans of the battle, with its ebb and flow of victory and defeat. This work would call for an intimate knowledge of the formations in which the Greeks and Persians were accustomed to fight, and

it would be preferable perhaps, to delegate this task to an abler pen than that of the present writer.

Let us, therefore, pass on now to a review of the second stage of this portion of the expedition, namely, the march of the Ten Thousand Greeks from the battle-field of Cunaxa as far as Opis, tracing day by day the itinerary of this, the opening phase of the historical retreat. A question, however, arises as to procedure. Shall we quote and discuss the conclusions arrived at, and the opinions expressed by previous commentators, or shall we merely record our own conclusions? In previous books and monographs dealing with the retreat of the Ten Thousand, not one single landmark in this portion of the expedition has been regarded as authoritatively identified; in consequence, the deductions of authors have rested on mere conjecture, a very insecure foundation on which to build up a geographical structure. Would it not be more profitable, therefore, to eschew entirely criticism on the inferences represented by other commentators, and relegate ourselves solely to basing our discussions on the translation of Xenophon's work as we read it in English print? Let us, then, accept this line of policy as our guide, and proceed to the examination of the story in its various details.

The narrative relates that the day following that on which the battle of Cunaxa was fought was spent in the holding of "conversations" with the messengers of King Artaxerxes, and with the representatives of Ariaeus until sunset, when Clearchus summoned a conference with the Greek generals and captains. At this assemblage, Clearchus announces that he has received information that Artaxerxes has fled beyond the Tigris. In this statement there is nothing inconsistent with the topography of the terrain. The present bed of the Tigris, on an arc of eighteen miles, lies on an average only twenty-five miles distant from Tel Aqar Kanīsah. An army which had just suffered a crushing defeat would,

without difficulty, cover this space in twenty-four hours, more especially when the safety of the entire force was threatened by delay. It is reasonable to suppose, however, that contact troops would still have been posted west of the Tigris. Next, we are told that soon after sunset camp was struck, and that about midnight the Greek legions reached their previous halting-ground near the modern Ridhwānīyah Post. On the following morning, at daybreak, the combined armies of Clearchus and Ariaeus commenced their retreat with the sun on their right. From this notice we may conclude that the direction of the march was northerly, but no mention is made of the actual mileage traversed, except that the vanguard arrived at a village at sunset, where a halt was called for the night. Let us now view the situation briefly. The season of the year was the beginning of September; the heat, therefore, must have been excessive. Xenophon himself relates that the men were tired, and that they had eaten nothing all day. Under such adverse and trying conditions, then, at how many parasangs may we compute the day's march. Would five parasangs, or an equivalent of thirteen to fourteen miles, be an acceptable figure? If so, we may conjecture that the villages in which the Greeks spent that night were situated on the southern border of the Saqlāwiyah depression. Although the length of this march must rest on pure supposition, there are two points of great significance which call for observation. Firstly, there is a total absence of any mention of canals having been crossed. Can this be regarded as a mere coincidence? No, surely not; on other marches the existence of canals has invariably found an entry in the itinerary. Does not this very omission emphasise the fact that, at this period of history, the Euphrates system of canals, above the Nahr Melcha, had not been constructed? Secondly, in which direction should we regard the hamlets to be situated where the contact troops of Artaxerxes were

quartered ? In any event, as the main body of Artaxerxes' army had sought security by flight across the Tigris, may we not safely assume that, when the contact troops dispersed during that night, they also fled eastwards ? Next, the narrative goes on to record that at daybreak on the following morning the King's heralds arrived to treat of a truce. From which point of the compass ? Surely from the east or north-east ? Then we read that Clearchus marched his army in order of battle to conclude the peace, and that he himself took charge of the rear. Now, on the previous day mention was particularly made of Clearchus marching with the vanguard. May we not gather from the relation of this fact that Clearchus regarded the vanguard as the point of danger ? On this particular day he marched with the rear. May we not equally well infer from this entry in the narrative that Clearchus, on this occasion, considered the rear to be most susceptible of attack ? In which direction, then, may we suppose that the army marched to conclude the truce ? Surely to the west or south-west ? And for how many parasangs ? The exact distance is immaterial, but let us say four to six miles. Now, here once more negative information of material consequence can be deduced. No reference is made to the trench, by way of fortification, which extended upwards for twelve parasangs to the Median Wall. May we not infer, then, without fear of committing an error, that the provision villages were inside that trench ? Next we find that all allusion to the four Tigris canals is absent. It is certainly true that on the last day's march to negotiate the truce, distributaries and ditches were encountered which had to be bridged, but no record is made that the main canals were crossed. On the other hand, a notice of the greatest moment *is* mentioned. We are informed that Clearchus pressed the bridging operations the more because he imagined that *the King had ordered the waters to be let out.* Have

we not definite proof in this passage that the regulators were in the hands of Artaxerxes—where ? From the position of Artaxerxes' forces, it would have been impossible for the King to have had control of these regulators had they been located on the Euphrates. What, then, is the obvious deduction ? Surely it is that the canals supplying the flood-waters were derived from the Tigris ?

But let us carry on with a review of the narrative. Our computations will have brought the Greeks to the provision villages somewhere in the neighbourhood of the present town of Fallujah. Here the Greeks and Ariaeus remained for over twenty-three days. The direction of their subsequent march to Sittace is marked tentatively on Map 1.

At this stage, let us take a general survey of the march with a view to discerning whether the conclusions at which we have arrived differ in any respect or materially from the facts as recorded by Xenophon, and with the object of emphasising the inferences that require confirmation.

No ideas clash until the march on the day after the grand review was held at midnight. Here Cyrus encountered the trench by way of fortification. It is in no way contended that the line drawn on the map faithfully represents its exact direction. Such can at best only be tentative. Diodorus asserts that the length of the trench was 400 stadia, whereas Xenophon's twelve parasangs amount only to 360 stadia. However, the actual line of the trench can only be accurately located by a systematic survey of the terrain. In any event, the line of the trench as indicated on Map 1 agrees *generally* with that recorded by Xenophon, for it certainly extends *upwards* to the Median Wall.

But let us carry on with our review. The site of the battlefield of Cunaxa gives rise to two observations, one of which is of extreme geographical importance. A glance at the map will disclose the fact that the old bed

of the Nahr Melcha drives straight through the very centre of the battlefield. On the other hand, Xenophon, in his description of the battle, omits all mention of the existence of the Nahr Melcha. It is to the Euphrates that every reference is made. What inferences, then, may we draw from this allusion? Surely we shall find ourselves on safe ground in assuming that this extension of the Nahr Melcha represented the ancient bed of the Euphrates?

The next point that arises is the question of the site of the provision villages. No entry is, again, made in the chronicle in connection with the trench; we should therefore infer from this negative information that the provision villages were situated within the confines of the trench, and we find that such a deduction does not contravene the geographical results of our commentary. What, then, of the route followed by the Ten Thousand after leaving these quarters. Having previously constructed bridges over the distributaries and ditches it is possible that the same road was traversed on the return journey, but it is more probable that the guides led the Greek army northwards in order to obtain access to the high desert plateau, thence in a north-easterly direction, and, finally, eastwards through the gate in the Median Wall.

But let us continue our observations. After passing through the Median Wall the narrative records that on the march to Sittace two Tigris canals were crossed.

May we not infer, then, from this notice that the canal spanned by seven pontoons was the ancient Archoüs Canal, taking off from the basin above Nimrod's Dam? The very fact that the bridge was constructed of pontoons would show that this canal was utilised as a navigable waterway for the passage of ships, the bridge being "cut," as the practice holds to this very day, when occasion demanded. The other canal, which was crossed by a brick bridge, would have been of lesser dimensions;

its special function may have been to supply Sittace with water, that town being set back from the right bank of the Tigris at a distance of fifteen stadia. It is possible that the derelict canal bed, which can still be traced east of Tazi railway station, constituted this second canal. In any event, of one fact we may be positive, namely, that this ancient canal bed cannot be taken to represent, as some modern writers would suppose, the lower portion of the Dujail of the Arab geographers, for we are distinctly told that the Dujail Canal emptied into the Tigris opposite 'Ukhbara, which was situated twenty miles farther north.

From Sittace the line of retreat is traced on the map, passing by Opis, and crossing the Physcus as indicated.

CHAPTER VI

THE INVASION OF MESOPOTAMIA BY THE EMPEROR JULIAN, A.D. 363

THE name of Julian, the Apostate, is branded deep in the annals of the Christian religion; yet the account of his expedition into Mesopotamia in A.D. 363, with its tragic and ignoble termination, has hardly received from the students of ancient history that attention which it deserves. The reason, perhaps, is not very far to seek. The scholar who takes up the Roman History of Ammianus Marcellinus with a view to acquiring a better knowledge of the details of Julian's expedition will lay down the volume with a feeling of disappointment. Beyond the fact that Julian marched down the Euphrates, crossed the Tigris, burning his fleet within sight of Ctesiphon, and retreating towards Kurdistan, the remainder of the chronicle, it must be admitted, consists chiefly in an unintelligible description of the storming and burning of many forts and walled cities (whose identity has never yet been established), accompanied by the murder of their inhabitants, irrespective of age or sex, at the hands of an enraged soldiery.

The primary aim of this chapter is to follow the march of Julian from the time he reached the Euphrates at Circesium until the fateful day when the broken remnants of the army staggered into Nisibin, special consideration being paid to the identity of places, and to the topography and general nature of the country as disclosed by the narrative.

Julian entered Circesium at the beginning of April, A.D. 363, which, we are told,[1] was a very secure fortress and skilfully built. Its site should be capable of easy identification, as it was located in the triangle formed by the confluence of the Euphrates with the Aboras, or modern Khabur River.[2] This waterway was crossed by a bridge of boats, and the march was commenced down the left bank of the Euphrates, when Zaitha[3] was reached, containing the tomb of the Emperor Gordian. A further advance of two days brought the army near the deserted town of Dura,[4] situated on the bank of the river; and after four more days of easy marching, the combined naval and military forces drew up in front of the walls of Anatha, a fortress surrounded by the waters of the Euphrates. We may, then, take it that Anatha was at least seven marches down-stream of Circesium. Such a calculation would serve to identify the fortress of Anatha[5] as having stood near the present-day town of Ana; in which event the determination of the site of Zaitha and Dura should not be a difficult matter. The army then passed through a country in which the alluvial levels near the banks of the river were highly cultivated,[6] but the plateau and its valleys were clothed with dense jungle. The next place mentioned is a fort called Thilutha,[7] which was situated in the middle of the river, and perched on a very high piece of ground. This fortress was not molested, owing to the natural strength of its ramparts.[8] Marching on, another similarly sited fort, called Achaiacala, was reached, which enjoyed the same immunity from attack as did Thilutha. Another day's march brought the expedition to a fort which had been abandoned owing to the weakness of its defences,[9] and this stronghold was burnt. Following a further advance of two hundred furlongs, in two days the army

[1] Appendix 15, Bk. XXIII., ch. 5, 1.
[2] *Ibid.* 4.
[3] *Ibid.* 7.
[4] *Ibid.* Bk. XXIV., ch. 1, 5.
[5] *Ibid.* 6.
[6] *Ibid.* 13.
[7] *Ibid.* ch. 2, 1.
[8] *Ibid.* 2.
[9] *Ibid.*

arrived at a place called Paraxmalcha,[1] where the river was crossed; and after traversing another seven miles, the city of Diacira, which would coincide with the modern Dulaisiyah,[2] was entered, it having been previously evacuated, evidently in haste, as considerable supplies of grain and excellent salt were obtained. The city was given to the flames, but a similar fate does not seem to have been accorded to a temple which was built on the summit of a lofty height.[3] Then a bituminous spring was passed, and the city of Ozogardana,[4] which had likewise been deserted, was next entered, and after a halt of two days, it was burnt.[5] We are also informed that this town contained a tribunal of the Emperor Trajan.[6]

Now, in Ozogardana we have an excellent landmark; for it is evident that it represents the precursor of Hit. An examination of the terrain, therefore, should serve to locate with a considerable degree of certainty the probable sites of Paraxmalcha, Achaiacala, and Thilutha. There is one point, however, which materially affects our review; reference is made to the fact that at Paraxmalcha the army was transferred from the left bank to the right bank of the Euphrates. No reason is assigned for this passage of the river, but may we not assume that some cogent military obligation rendered the crossing of the Euphrates necessary? Can we, then, propound some acceptable theory which would explain this manœuvre? Surely it was the fear, or the certain knowledge, that the plan prepared by Nebuchadnezzar, nearly a millennium earlier, for the defence of Babylonia, would be put into effect by the Persians—namely, the cutting of the regulator at the head of the Saqlāwiyah depression, thus placing an impassable barrier in front of Julian's army, in the form of a wide and extensive sheet of water. May we not further, then, deduce the fact that the

[1] Appendix 15, Bk. XXIV., ch. 2, 3. [2] *Ibid.* [3] *Ibid.*
[4] *Ibid.* [5] *Ibid.* 4. [6] *Ibid.* 3.

retransference of the army, with its supply and baggage train, from the right bank of the Euphrates to its left bank, would have been carried through at some point down-stream of the Saqlāwiyah depression? Where, then, should we look for the locale of this second passage of the Euphrates? The narrative tells us that the place selected was at the village of Macepracta. Again, some military necessity will have dictated the choice of this locality. Is not the reason obvious? Was it not only with the intention of avoiding an impediment in the shape of the Saqlāwiyah Lake, but also in order to obviate crossing the broad sweep of the Nahrmalcha, or river of kings, which took in from the Euphrates at Macepracta [1] and flowed past Ctesiphon? Can we, then, identify Macepracta? The chronicle relates that at Macepracta were seen vestiges of walls half destroyed,[2] which had once been of great extent, and had served to protect Assyria from foreign invasion. Nebuchadnezzar has recorded the fact that the southern extremity of his outer defensive rampart was situated in the middle of Sippar.[3] Is not Macepracta, then, identical with the ancient Sippar? Is not this deduction also borne out by the topographical details furnished in the history of Ammianus, for in ancient times were not the headworks of the large canals conveying water to the interior of Babylon located at Sippar? [4]

The narrative continues by relating that shortly after the passage of the Euphrates was successfully accomplished, the army arrived at the city of Pirisabora,[5] of great size and populousness, and also surrounded with water. We are told that the city was encircled with a double wall, and that it also contained a citadel close to the wall, erected on the level summit of a ragged hill, of which the centre, rising to a great height in its

[1] Appendix 15, Bk. XXIV., ch. 2, 7. [2] *Ibid.* 6.
[3] Appendix 2, Inscrip. XIX., B. col. 6, lines 68–76.
[4] Appendix 15, Bk. XXIV., ch. 2, 7. [5] *Ibid.* 9.

round circle, represented an Argive shield, except that in the north it was not quite round, but at that point it was protected by a precipice which ran sheer down into the Euphrates.

Now, topographically, the extensive mound of Tel Wusaigir, situated about four miles south-east of Sippar, might well represent the city of Pirisabora, with the adjacent Tel Dhahab as the citadel; for immediately to its north are the traces of an ancient waterway. Phonetically, too, might not the "Dhāhab" or "Zāhab" coincide with the "Sabora" of Pirisabora?

The account [1] sets forth that the city was besieged and capitulated,[2] and that it suffered the usual fate of being destroyed by fire. The diary then continues by recounting that after proceeding fourteen miles further, a certain spot was reached [3] where the soil was fertilised by an abundance of water, and that as the Persians had either foreseen the probable direction of the march, or received information of Julian's plans, the earthen dams had been cut and the whole country flooded.

Now the question arises, to which point of the compass did the troops march after leaving Pirisabora? It certainly cannot have been in an easterly direction, for in that event they would have reached the walls of Seleucia. The chronicle, however, throws light on this problem; for it is recorded that the army during its advance passed by several islands, and at last came to a spot where the larger portion of the Euphrates is divided into a number of small streams.[4] It is patent, therefore, that the march was still towards the south along the left bank of the Euphrates, and may we not surmise that the locality where the Euphrates was split up into many canals should be sought for near the intake of the Cutha Canal, where traces of a considerable number of distributaries exist. If this supposition is accepted,

[1] Appendix 15, Bk. XXIV., ch. 2,9.
[2] *Ibid.* 2.
[3] *Ibid.* ch. 3, 3.
[4] *Ibid.* 14.

then the Jewish city which had been evacuated [1] owing to the lowness of its walls might well be identified with the ruined mounds of Tel Mangar.

Julian's secondary objective, lying in the direction of Babylon, had, however, not yet been attained, for it is related that after burning the Jewish city the Emperor proceeded farther on, and pitched his tent on the outskirts of Maogomalcha,[2] a city of great size, and surrounded with strong walls. Julian was, however, apprehensive of a surprise attack being delivered on his rear by a force of Persian cavalry, so he determined to place the river between himself and the enemy horse. On the following day, therefore, the army was moved to the right bank of the Euphrates by means of a bridge, where camp was pitched in a more "healthy" situation. Such is the passage as rendered by the translator, but from the context "favourable" would seem to be a better adaptation of the meaning which Ammianus intended to convey.

Can we, then, identify Maogomalcha? No specific topographical details are mentioned in the report, which would serve as an indisputable guide, but on the actual ground the only mounds, after the Cutha Canal intake, which would have supported a city of great size are those situated in the vicinity of the present-day Khan Nāsiriyah.

In any event, the general location cannot be considered as incorrect, for we are informed that after the city had capitulated, the Romans, in their subsequent advance, crossed over several rivers in succession [3] by means of bridges, and reached two forts [4] constructed with great strength and skill, not far from Coche, which was also called Seleucia.

But let us study the details of the description of Maogomalcha with more minuteness, and ascertain

[1] Appendix 15, Bk. XXIV., ch. 4, 1. [2] *Ibid.* [3] *Ibid.* 31.
[4] *Ibid.* [5] *Ibid.* ch. 5, 3.

whether we can evolve any deductions which might obtain acceptance.

It is recorded in the narrative that the approach to the town [1] lay everywhere over rocks of great height and abruptness, across which there was no straight road. Now it is common knowledge that the plains of Mesopotamia proper consist wholly of alluvial deposits, and that even stones, much less rocks, are conspicuous by their entire absence. We may therefore accept it as a fact that the rocks mentioned [2] were not natural, and that the mountain on which the citadel was built was also artificial and the work of past man. If, then, the rocks were not natural, what was their composition? What else could these so-called rocks represent but the debris of an ancient wall, which had originally been constructed either of blocks of stone, or of burnt brick cemented with bitumen? To what particular wall, then, could this allusion refer? Is not Khan Nāsiriyah exactly 17½ miles distant from Tel Oheimir in a direct line? Does not Nebuchadnezzar record that—

"In the suburbs of Babylon, from the causeway on the bank of the Euphrates to the middle of Kish, 4⅔ Kaskal-gīd of ground, I heaped up an embankment of earth and surrounded the city with large floods. That their overflow might not make holes in it I secured it within with mortar and brick"?

Now at that period a "bêru" or "kaskal-gīd" of ground represented a distance of 3·738 miles. The length of this wall would therefore have been about 17½ miles. Tel Oheimir, we know, is identical with Kish. Do not topographical and historical data, therefore, point to the conclusion that the ruins in the vicinity of Khan Nāsiriyah cover the north-west extremity of the Kish wall of Nebuchadnezzar at the causeway on the bank of the Euphrates, and also the city of Maogomalcha,

[1] Appendix 15, Bk. XXIV., ch. 4, 10. [2] *Ibid.*

sacked by Julian? We can produce still another argument which would tend to corroborate the accuracy of this contention.

When Julian's army was being marshalled for the siege of Maogomalcha, we are informed that after all the preparations for the taking of the city had been completed, a captain named Victor returned,[1] who had explored all the roads as far as Ctesiphon, and brought word that he had met with no obstacles. May we not accept it as a fact, then, from this notice, that Maogomalcha lay on the highway from Babylon to Ctesiphon; the city, we know, was also situated on the banks of the Euphrates, where the road would have assumed the form of a causeway, and it was, furthermore, located 17½ miles from Kish or Oheimir. These three facts furnish a combination of topographical details that cannot be lightly ignored.

In any event, Maogomalcha marks the most southern limit of the Emperor's march; for from this city he turned his steps north-eastward, and after recrossing the Euphrates, his route led him over the Cutha Canal and other important waterways, past a palace constructed after the Roman fashion, and an enclosure stocked with wild beasts, both of which, we may conjecture, were within easy reach of Seleucia.

The time has now arrived when we may with benefit examine this portion of Julian's plan of campaign, including the incentive which induced him to make this thrust towards Babylon. From Sippar, or Macepracta, why did not Julian advance direct on Ctesiphon, opposite to which he could have reached the Tigris in one day's march? Does not Ammianus himself disclose the motive? That historian places it on record that Julian[2] undertook the siege of Maogomalcha, thinking it too dangerous to march forward while leaving formidable enemies in his rear. Having reached Sippar, then, he

[1] Appendix 15, Bk. XXIV., ch. 4, 13. [2] *Ibid.* 6.

was faced with two problems. Either he should march direct on Ctesiphon and leave the whole of lower Babylonia unsubdued on his flank and rear, or else he should "hold" the Persian forces at Ctesiphon and first conquer the country almost as far as the erstwhile glorious Babylon. The latter plan was put into effect as representing the soundest military policy. The main portion of the fleet was left at Sippar to cover his rear, and to protect his supply and baggage train, sufficient ships only being taken to enable the Euphrates to be bridged, the breadth of which at Maogomalcha would have been greatly reduced owing to the numerous large and small canals which took the waters out of the river from Sippar downwards to Maogomalcha. Some ships also would have been requisite to transport the siege train and engines of war. But why was Maogomalcha set down as the main objective in this southward push? Cannot we find the solution to this problem in the very fact that Maogomalcha had in Nebuchadnezzar's reign constituted the north-western terminal pivot point of this ancient defensive rampart? It is clear from the diary that the wall had, to a certain extent, fallen into a state of disrepair, but, on the other hand, it might still have served as a line of resistance, behind which enemy forces could have collected to harass Julian at a time when his legions might have been fully engaged with King Sapor's main army. The capture and destruction of Maogomalcha, therefore, it may be said, would knock away the keystone of the arch on which the defensive rampart was sprung. With the elimination of this pivot point as a military asset in the general defensive position, Julian was free to devote his entire resources to the reduction of Ctesiphon.

After Maogomalcha was captured, Julian marched along the grand trunk road north-eastwards towards Seleucia, and his fleet sailed down the Nahrmalcha[1] with

[1] Appendix 15, Bk. XXIV., ch. 5, 5.

his supply train of cattle herded on the north bank of the royal river. Now common-sense would indicate that the main thoroughfare from Sippar to Ctesiphon would have followed the right bank of the Nahrmalcha, passing through Seleucia. It is a matter for speculation, therefore, why the order was issued whereby the live stock marched to the north of that waterway. It should be remembered, however, that in the neighbourhood of Seleucia the canal bed had been blocked, and that it was dry for a distance of thirty furlongs from the right bank of the Tigris.[1] Any enemy raiding party, therefore, making a sortie from the gates of Ctesiphon with the supply train as its objective would be obliged to take one of two alternative routes. Either the force would have to pass over and return by this narrow neck of land, or else it would have to make the passage of the Tigris above its confluence with the Diyala River, for it will be shown later that in Julian's time the mouth of the Diyala River must have been located considerably closer to Ctesiphon than it is at the present day.

The main body of the army, marching from Maogomalcha, struck the channel of the Nahrmalcha near Seleucia, and discovered that its bed,[2] as we have already mentioned, had been blocked up with a mass of stones, with the object of preventing Julian's fleet from debouching into the Tigris.[3] Thereupon the Emperor pitched camp near Seleucia, and first put it into a state of defence, with the aid of a rampart, dense rows of palisades, and a deep fosse.[4] Having made his camp secure from sudden sallies and various formidable and dreaded manœuvres—for he was close to Ctesiphon—he then set himself the task[5] of opening up the bed of the royal river. The fleet sailed into the Tigris, and it is recorded that the army at once threw bridges across[6]

[1] Appendix 15, Bk. XXIV., ch. 6, 2.
[2] *Ibid.* 2.
[3] *Ibid.* 1.
[4] *Ibid.* ch. 5, 12.
[5] *Ibid.* ch. 6, 2.
[6] *Ibid.*

the river, and passing over to the other side, marched upon Ctesiphon.

Thus Julian transferred the whole of his army to the left bank of the Tigris without encountering any opposition from the Persian troops based on Ctesiphon.

The chronicle continues by stating that camp was pitched in an open plain,[1] rich with trees, vines and cypresses, in the middle of which was a shady and delicious palace. Is it a mere coincidence that no mention is made, in the narrative, of the construction of a rampart, palisades, or fosse; and does the description of the terrain furnish one with an impression of its representing an ideal field on which to fight a pitched battle? Why, then, was Julian's passage over the Tigris not disputed, and for what reason did he select such a luxurious camping site, when a large detachment of the main Persian army was within striking distance? The solution of this problem is not far to seek, if we can decipher correctly the topographical data noted by Ammianus. This historian relates that the Emperor divided his fleet into three divisions, with the intention of despatching one division across the river with speed, in order to deliver a surprise night attack and seize on the farther bank, which was in possession of the enemy.

Now, in this notice, the name of the river has been omitted. The river, to which allusion is made, cannot possibly be the Tigris, for the whole army had already made the passage to the left bank successfully.[2] The only other river, then, which would cover this reference is the Diyala. Directly this interpretation of an otherwise somewhat involved statement is mastered, Julian's whole plan becomes clearly disclosed.

When the Roman fleet had debouched into the Tigris the initiative rested with the Emperor. He could bridge the Tigris at any spot which suited his purpose best. The Persian generalissimo wisely decided not to

[1] Appendix 15, Bk. XXIV., ch. 6, 3. [2] *Ibid.* 2.

place his forces astride the unfordable Diyala River, and thus hazard being defeated in detail. He was content to concentrate his troops below the confluence of the two rivers, and by holding the line of the Diyala regain the initiative which he had temporarily lost. Julian determined to wrest this initiative once more from the Persian chief. He evolved the scheme of a surprise night attack across the mouth of the Diyala, with the object of securing the left bank of that stream, as also of the Tigris below their junction.[1] The prosecution of this plan greatly alarmed the Roman generals, and they entreated Julian to abandon the project, fraught as it was with grave risk and danger. Julian, however, was obdurate, and the attack was launched according to scheduled time. Bold tactics won the day; and, in spite of a stout and protracted resistance on the part of the Persian arms, the Roman legions established themselves immovably on the farther bank of the Diyala,[2] the initiative thus passing once more into the hands of Julian. Having secured this advantage of position, Julian proceeded to extend his initial success and engage the enemy in a pitched battle. The fighting portion of his army must have been transferred to the left bank of the Diyala, for we read that when the two armies beheld each other,[3] the Romans rushed to battle with such vehemence that the earth trembled beneath them. The Persians suffered a severe defeat and were driven within the walls of Ctesiphon, which we are told was near, the Romans pursuing them up to the very gates of the city.[4]

Now, up to this point Julian's expedition had comprised a triumphal procession, city after city being stormed and captured, or capitulating voluntarily, the crowning victory being achieved in front of Ctesiphon. Julian, however, had not yet encountered the main

[1] Appendix 15, Bk. XXIV., ch. 6, 5. [2] *Ibid.* 6.
[3] *Ibid.* 10. [4] *Ibid.* 12.

army of the Persians under the leadership of King Sapor himself; and until that army was destroyed, his conquest of Persia could not be established. At this juncture, Julian was faced by a very vital military problem. Strategically his position was extremely favourable; for he was united and held the inner lines, separating the main army under King Sapor, which was still in the field, from the force commanded by his son, which was shut up in Ctesiphon.

Tactically, however, his position was disadvantageous; for if he were attacked by King Sapor before he himself could take the offensive, he would have the Tigris and the fortified city of Ctesiphon immediately in his rear.

Julian had to make a momentous decision. Should he "hold" King Sapor's main army and besiege Ctesiphon, or should he "contain" Ctesiphon and cross swords with Sapor, if possible, in a terrain of his own choosing? The fundamental rules of war would certainly demand the prosecution of the latter plan. Unfortunately, however, there were other factors which pressed for consideration. Julian evidently felt that his numbers were insufficient both to undertake the siege of Ctesiphon, and also to fight Sapor, with the chances of success on his side.

In this dilemma, Julian summoned a conference [1] of his chiefs. We can hardly doubt the fact that the Emperor had already mapped out the course which he intended to adopt ultimately; but when an unpopular move is contemplated, it is a matter of sound policy to call in one's lieutenants and deliberate on ways and means. In this instance it is recorded that it appeared to some of the heads that it would be an act of unreasonable temerity to attack Ctesiphon, both because its situation made it almost impregnable, and also because it was believed that King Sapor was hastening with a formidable army to the relief of the city. The

[1] Appendix 15, Bk. XXIV., ch. 7, 1.

outcome of the conference was that the better opinion prevailed, and that the sagacious Emperor, being convinced of its wisdom, sent Arinthæus with a division of light infantry to lay waste the surrounding districts, which were rich both in herds and crops.[1] Now, from this notice, and also from the previous one, it is very evident that the topography of the terrain at the period under review must have differed materially from that extant at the present day. The Diyala must have joined the Tigris close above Ctesiphon, and it is possible that another branch protected it on the east, and the city itself, we may be certain, was surrounded by the customary moat.

Now, once the decision was taken that the siege of Ctesiphon would not be embarked upon, then two courses lay open to Julian. Either he should retreat across the Tigris, and return by the Euphrates route; or else he must advance and give battle to Sapor. As a matter of actual fact, the former alternative could not be entertained; and Julian must have fully recognised its impracticability, for at a later conference, when the common soldiery clamoured for its adoption, it is related that Julian steadily opposed this idea,[2] and that he was joined by several officers who contended that such a scheme could not be put into effect, the main reasons advanced being that the entire country in their rear had been devastated and could afford no supplies, and that, in addition, the plains would be flooded from the melting of the snows, and so rendered impassable to large masses of troops.

Julian, therefore, had no option but to advance, with this somewhat unique modification, however, that his line of advance also constituted his best line of retreat, unless, of course, he routed King Sapor so completely as to become master of Persia, in which event the contingency of retreat would be eliminated.

[1] Appendix 15, Bk. XXIV., ch. 6, 10. [2] *Ibid.* ch. 8, 2.

We may accept the fact without demur that Julian was fully conversant with the routes followed both by Xenophon in the retreat of the Ten Thousand Greeks, and by Alexander on his march to Babylon after defeating Darius at Gaugamela. Julian had no choice except to march on Kirkuk, and thus cut into the Royal Road between Sardis and Susa. He therefore disregarded the advice of those who remonstrated against his advance, and leaving the Tigris on his left hand, determined to proceed [1] towards the inland parts of the country by forced marches. Now this reference, if studied carefully, discloses precisely the route followed by Julian. It is stated in plain words that the army *left* the Tigris on its left hand. Julian must, therefore, have marched up the Diyala River, and we are told most definitely that his intention was to advance by forced marches. What grounds can be assigned for the necessity of pushing on with such haste? Surely the reason is manifest. If Sapor's army, or advanced guard, occupied the defile through the Jabal Hamrīn range of mountains, then Julian's further progress would have been entirely barred. Speed of movement, therefore, constituted the essence of the manœuvre.

But Julian had to contend with yet another problem. What should he do with his fleet? Under the conditions that presented themselves to the Emperor after the battle of Ctesiphon, and consonant with the information of which he was in possession regarding the position of Sapor's main army, there could be only one possible solution to this riddle. To prevent his fleet, if left behind, being of any use to the enemy,[2] and also to obviate what happened at the outset of the expedition, nearly 20,000 men being occupied in moving and managing the vessels, Julian ordered all his ships to be burnt, with the exception of twelve of the smaller vessels, which he arranged should be carried on wagons

[1] Appendix 15, Bk. XXIV., ch. 7, 3. [2] *Ibid.* 4.

as likely to be of use for building bridges. Unless he could be certain of crushing Sapor, and thus becoming master of Persia and Mesopotamia, the only decision he could possibly arrive at was the destruction of his fleet. Julian cannot be accused of having taken such drastic measures in a fit of impulsiveness. Cannot we accept the verdict that the "sagacious Emperor"[1] must have given the problem the most careful consideration before issuing orders which he must have known would produce consternation and disaffection amongst his rank and file? The fiat, however, went forth, and it produced the inevitable grumbling among the men, that if the advance proved abortive, with the fleet burnt, they would have no means of returning across the Tigris[2] (such is probably the meaning of the passage which Ammianus intended to convey, and not to "get water," as Yonge has interpreted the clause). But the common soldiers were not the only ones who regretted that this irrevocable measure had been initiated. Julian himself, when the deserters, on being put to the torture, openly confessed that they had made a false report, at once ordered all hands to labour to extinguish the flames.[3] Why was the Emperor so anxious to revoke the mandate which he had pronounced after the most mature deliberation? His reasons for rescinding the decree were totally different to those advanced by the soldiery. As Sapor was not close at hand, the necessity for an immediate advance was no longer existent. Consequently there was yet time for the reinforcements under the command of Arsaces,[4] in numbers little inferior to the strength of his own army, to reach him before he was compelled to meet Sapor in the decisive battle which was impending.

With the destruction of the fleet,[5] however, the means of bridging the Tigris vanished; thus Arsaces was

[1] Appendix 15, Bk. XXIV., ch. 7, 8. [2] *Ibid.* 5. [3] *Ibid.*
[4] *Ibid.*, Bk. XXV., ch. 7, 2. [5] *Ibid.*, Bk. XXIV., ch. 7, 8.

unable to join Julian as must have been originally planned. The actual loss of the fleet cannot have perturbed Julian [1] to any great degree; but, on the other hand, when a chief, through faulty intelligence, misses the opportunity of doubling the man-power of his army on the eve of a decisive battle being fought with a formidable enemy, greatly superior in numbers, then indeed the generalissimo must feel that Fortune has dealt him a most vindictive blow.

On the asset side, however, Julian had obtained an addition to his fighting strength of 20,000 men; and so, being strong in numbers, Julian advanced inland, the rich district through which he passed supplying him with an abundance of provisions.[2] When Julian's intention of proceeding by forced marches to secure the defile of the Jabal Hamrīn was comprehended by the Persians, they immediately took steps to frustrate his plan, by firing the grass and nearly ripe crops.[3] The desired effect of delaying the advance was produced; for it is narrated that the Romans remained stationary in camp till the conflagration was exhausted.[4] Meanwhile, the Persians, from the eastern bank of the Diyala, hurled insults across the river,[5] which added to the exasperation of Julian and his army, and also harassed the Romans on every possible occasion. Retaliation was impossible owing to the absence of pontoons for the construction of a bridge.[6]

The Emperor held another conference, in which it was decided to seize on Corduena,[7] since no better prospect presented itself, and on June 16 camp was struck, and at daybreak Julian set forth.[8] The column had just moved off when a great cloud of dust was observed, so the trumpets signalled a halt [9] in a grassy valley near a small stream. As day broke on June 17,

[1] Appendix 15, Bk. XXIV., ch. 7, 8. [2] *Ibid.* ch. 6, 6.
[3] *Ibid.* 7. [4] *Ibid.* [5] *Ibid.* [6] *Ibid.* 8.
[7] *Ibid.* ch. 8, 5. [8] *Ibid.* [9] *Ibid.*

it became apparent that Julian was face to face with the King's army.[1] The Emperor took the offensive at once, and the Persians suffered a severe defeat. The narrative continues by relating that after leaving that district a village called Hucumbra was reached, at which place the army camped for two days, obtaining an abundance of supplies.[2] Now, there should be little difficulty in identifying the site of Hucumbra with the present-day Baquba, and if such a conjecture is admitted, then there is one topographical notice which we should expect to be recorded. Allusion is made to the Nahrwān Canal. It is highly probable that had this section of the Nahrwān Canal been operating in A.D. 363, its passage by Julian's army would have found a place in the war diary of the expedition. The very fact that the existence of this waterway is nowhere mentioned in the chronicle might be taken as evidence to prove that at the period of Julian's expedition this division of the canal had not been excavated.[3] The advance, accompanied by a certain degree of opposition, was resumed on the third day; but as the distance to Hucumbra from the scene of the battle which had been fought on the 17th inst. is not stated, the actual date cannot be determined; however, seventy furlongs were traversed, and subsequently the district of Maranx was reached. No specific topographical details are recorded in the chronicle which might serve as an aid to the identification of Maranx, but we may surmise without much fear of contradiction that the modern Marrah would represent the site of the ancient Maranx. A single glance at Map 1 will reveal the supreme strategical importance of this locality. In the vicinity of Marrah the two main roads of communication between Media and Babylonia would have debouched on to the alluvial flats of the Tigris—Diyala valley. If King Sapor

[1] Appendix 15, Bk. XXIV., ch. 8, 3. [2] *Ibid.* 4.
[3] *Ibid.* 5.

held the two defiles through the Jabal Hamrīn range against Julian, then the Roman army would have been forced to retreat on the Tigris, which course would probably have spelt its eventual disintegration. It was at this strategical centre that Sapor elected to fight a pitched battle with Julian, with the object of preventing the Emperor from advancing inland in the direction of Kirkuk. The description of the battle of Maranx by Ammianus [1] is most vivid. Although the honours of the day rested with the Romans, the combat ended indecisively; for Julian's legions,[2] on the signal for retreat being sounded, returned to their camp. The conflict had been so severe that a three days' armistice was called, for the wounded to receive the necessary attention.[3] On the fourth day, camp was again struck at sunrise, and the army continued its advance. Next follows a topographical notice of material significance. Ammianus relates that the Persians shunning pitched battles laid ambuscades on the road, and occupying the hills on each side continually reconnoitred the Roman battalions as they marched. Now this reference has determined one factor without possibility of challenge, namely, that Julian's advance, after the battle of Ctesiphon, was not conducted up the left bank of the Tigris; for had this line been followed, then under no circumstances whatever could the army have marched with hills on each side. The only other alternative route was to Maranx, after leaving which Julian's forces bore left-handed and proceeded along the western artery through the Jabal Hamrīn and Jubbah Dāgh passes in the direction of Kirkuk, at which town Julian, as already indicated, would have struck into the Royal Road leading from Sardis to Susa. Does not the topographical notice to which allusion has just been made corroborate our inference that the modern Marrah

[1] Appendix 15, Bk. XXIV., ch. 8, 11-19. [2] *Ibid.* 18.
[3] *Ibid.* ch. 2, 1.

represents the Maranx of Ammianus? The Persians, having been very severely handled by Julian at Maranx, were content to occupy the heights on either side of the Jabal Hamrīn and Jubbah Dāgh passes, laying ambuscades on the road. However, when Julian had emerged from the broken ground of the Jubbah Dāgh and reached the alluvial levels of the Sallāhiyah Valley his squares were again attacked, simultaneously from the front and rear, and from both flanks. Can a topographical knowledge of the terrain furnish us with a clue to the locale of this battlefield? Every indication of the ground would point to ancient Kifri as being the spot where Julian received his death-wound. The site of ancient Kifri is marked by an artificial mound which stands out from the plain, and forms a prominent landmark for many miles round. In the immediate environs of this mound unmistakable traces exist to show that at some earlier period the locality supported a town of moderate dimensions. At modern Kifri the razor-edged ridges of hills to the north-east, under which it nestles, are cut through by the bed of a stream. On the left flank the Jabal Hamrīn range is similarly pierced by the Adhaim River. We may be certain that these two side bolt-holes would have been adequately blocked by King Sapor's troops; likewise, the further advance would have been barred by a column operating from Kirkuk, while the line of retreat, either via Qarah Tappah or Qizil Rubat, would have been closed by the remnants of the forces which had previously suffered defeat there at the hands of Julian's legions. Thus, at ancient Kifri, Sapor could, with facility, have disposed his divisions in such a manner as to hem in Julian's army on every side.

Let us now examine the chronicle, and ascertain whether any clues are obtainable regarding the locality in which this epoch-making battle was fought.

First, we are told that the place where the Emperor

fell was called Phrygia.[1] Now, we should be ill-advised to accept the identification of a site merely from its marked resemblance in pronunciation to a historical appellation; but we shall find ourselves on much firmer ground if several place-names bear a strong phonetical similitude to references contained in the narrative of an early writer. Etymologically, Phrygia might very well be accepted as identical with Kifri.

Next, it is recorded that the right wing of the army was exhausted by its exertions, and that Anatolius,[2] who was master of the offices, was killed, though Sallust managed to escape. Now, can it be taken as a mere coincidence that a stream flowing a few miles east of ancient Kifri, across the valley, is called Sallāhiyah?

Then, again, we are informed that certain soldiers and a party of the guards of the palace,[3] after great danger, threw themselves into a neighbouring fort called Vaccatum. It is also stated[4] that towards night, that is to say after a whole day's march, the body of Anatolius was found near this fort.[5] Can these two names, taken in combination, furnish us with a clue as to the identification of the site of this fort? Could Anatolius Vaccatum be recognised in the modern Tuz Khurmātu? In any event, Tuz Khurmātu marks the first stage on the march, at the present day, between Kifri and Kirkuk.

Furthermore, it is recounted that Julian's left flank, at its centre, was heavily attacked by Persian cuirassiers and elephants. The ground to the west of ancient Kifri is open and flat, being ideal for the movement of cavalry and elephants, whereas the area to the north-east is much broken and seamed with ravines.

Are these notices sufficient to identify the field of battle on which Julian met his fate as being situated in the neighbourhood of Kifri? But the war diary

[1] Appendix 15, Bk. XXIV., ch. 3, 9. [2] *Ibid.* 14.
[3] *Ibid.* ch. 6, 2. [4] *Ibid.* 4. [5] *Ibid.*

will furnish us with additional evidence if we study its details attentively.

Julian expired quietly about midnight [1] of June 26–27, A.D. 363, in the thirty-first year of his life, and Jovian was elected emperor in his stead.[2]

The Roman army, surrounded by the Persians on every side,[3] continued the march shortly after daybreak on June 27, pressing forward with all speed towards a fort called Sumere.[4] Now, topographically, this notice is of supreme importance in more senses than one. Firstly, we can hardly fail to identify the fort of Sumere as the precursor of the later Abassid capital of Samarrah. Once this fact is admitted, then it becomes evident that after the lamentable death of Julian, the plan for the advance on Corduena via Kirkuk was abandoned in preference to a retreat to the Tigris by way of the Adhaim defile through the Jabal Hamrîn range of mountains. This change of programme spelt the demoralisation and almost the total annihilation of the entire Roman army. Further, it marked the first step in the disintegration of the Roman Empire in the East. Now, another notice furnishes us with indisputable proof that the army on its march to Sumere must have followed a cart road and not struck across country. It will be remembered that after the battle of Ctesiphon twelve of the smaller ships were set apart to accompany an army on wagons,[5] as likely to be of use for building bridges. We are later in the diary told that the Emperor himself [Jovian],[6] with a few others, crossed over [the Tigris] in these selfsame vessels. It is evident, therefore, that the Roman forces cut into the main road that led from Kirkuk to Babylon via the Adhaim gorge, and which earlier in the history of Mesopotamia traversed Opis and Sittace. After the battle of Kifri, then, the

[1] Appendix 15, Bk. XXIV., ch. 6, 23.
[2] *Ibid.* ch. 5, 4.
[3] *Ibid.* 1.
[4] *Ibid.* ch. 5, 1, and ch. 6, 2.
[5] *Ibid.* ch. 7, 4.
[6] *Ibid.* Bk. XXV., ch. 8, 2.

first stage on the march to the Tigris would have been Tuz Khurmātu or Vaccatum. Where would the next camping ground have been located? The narrative furnishes us with this information; for it is recorded that on the following day camp was pitched in a valley in as favourable a spot as the nature of the ground permitted.[1] This valley can have been none other than the Adhaim defile itself, through the Jabal Hamrīn range.

Then follows a notice the value of which to science can only be labelled as inestimable, and the correct interpretation of which opens up a vast field of possibilities to the archæologist and the student of the ancient history of Mesopotamia. The diary relates that on quitting this camp,[2] the next night a place called Charcha was reached where the Romans were safe, *because the artificial mounds of the river had been broken to prevent the Saracens from overrunning Armenia*, so that no one was able to harass the Roman lines as they had done before.

Now, it is evident that the translator has been sorely puzzled by this passage, solely because, through a lack of topographical knowledge, the meaning which Ammianus intended to convey in this sentence has never been properly comprehended. The Latin text reads:—

> "quod riparum aggeribus . . .
> humana manu destructis."

The solution to this conundrum, then, lies in the true rendering of the word "agger."

Lewis and Short, the favourite Latin lexicographers, supply the following meaning to the word "agger":—

"The pile formed by masses of rubbish, stone, earth, brushwood, etc., collected together; according to its destination, a dam, dike, mole, pier, hillock, mound,

[1] Appendix 15, Bk. XXV., ch. 6, 5. [2] *Ibid.* 8.

wall, bulwark, rampart, especially frequent in the historians of artificial elevations for military purposes."

In other words, then, Ammianus tells us that *Nimrod's Dam had been voluntarily breached* to prevent the Saracens from harassing the Roman frontiers in Armenia. Who, then, precisely were the Saracens? The Saracens constituted one of the nomad tribes of the Syro-Arabian desert, who were in the habit of conducting periodical raids on the marches of the Roman Empire. In this connection, the opinion of the Arab held by Ammianus should be of more than passing interest to those of us who gained his acquaintance, sometimes of rather too intimate a nature to be pleasant, during the earlier stages of the Mesopotamian Campaign, and in the recent rebellion. Speaking of the Arab, Ammianus gives him the following character (Bk. XIV., ch. 4, 1):—

"At this time also the Saracens, a race whom it is never desirable to have either for friends or enemies, ranging up and down the country, if ever they found anything, plundered it in a moment, like rapacious hawks who, if from on high they behold any prey, carry it off with rapid swoop, or if they fail in their attempt do not tarry."

Truly, the leopard cannot change its spots!

Is not, then, the interpretation of this passage made perfectly clear?

Nimrod's Dam was deliberately breached, so that the canal system to the west of the Tigris, fed from the basin above the dam, was rendered non-operative, and the whole area was once more transformed into a waterless desert, thereby throwing an arid barrier across the path of the Saracen, and securing immunity for the Roman frontiers.

What an act of vandalism!

But does not this statement furnish us with irrefutable evidence that Xenophon's reference to the four canals

being derived from the Tigris, and flowing into the Euphrates, is unchallengeable? Where, then, is Charcha? Charcha must have been the precursor of Kadisiyah and identical with the Carrhae which Alexander visited, and the Akkad of Senacherib, whose inscription locates it on the farther, *i.e.* left bank of the Tigris. Similarly, the fort of Sumere must have been identical with the earlier Sambana of Alexander's era, and the still more ancient Zumban; and the remains of these ancient cities, as also of the Persian fort, should be found within the area of the ruins which surround the present-day town of Samarrah.

In any event, of two facts we may be positive, namely, that Kadisiyah, Samarrah, and Daur existed several centuries before the Arab conquest, and that their inception cannot be placed to the credit of the Caliphs; secondly, that the so-called Median Wall and the subsidiary fortifications protecting Nimrod's Dam must have been constructed several hundreds of years before the advent of the Arab invasion. Any scientist who endeavours to assert that these defensive works are a product of more modern times, and that the three cities of Kadisiyah, Samarrah, and Daur were non-existent before the tenth century A.D., is falling into a very grievous error.

However, let us turn once again to our review.

On July 1, *i.e.* on the fifth day after leaving Kifri, a march of thirty furlongs brought the Roman army to the city of Dura, or modern Daur. The Persians were, however, determined that the Roman forces should not escape them; and although the Emperor attempted to advance, evidently up the left bank of the Tigris,[1] the incessant attacks of the Persians on his rear compelled him to retrace his steps in order to reinforce his hard-pressed rearguard. Thus four days were lost, and the army was eventually pinned to its ground at Daur.

[1] Appendix 15, Bk. XXV., ch. 6, 11.

Then the signs of demoralisation became more pronounced. The soldiers turned mutinous[1] and demanded with threats that they should be led across the Tigris. Jovian's scheme for the evacuation of his army is not disclosed; and it appears exceedingly doubtful from the chronicle whether, after his failure to advance up the river, any connected plan did exist in the brain of the Emperor for the salvation of his army. Jovian essayed to pacify his soldiery, but having no alternative project which he could throw to his men as a sop, he was constrained finally, but very reluctantly,[2] to accede to their request. Five hundred Gauls and Northern Germans swam the Tigris under cover of darkness,[3] and, surprising the Persian guards, secured the right bank of the river. Now, any one who has stood on the conglomerate cliffs of the Tigris and gazed over the stream as it swirls past in a red, silt-laden, turgid flood, will realise the magnitude of the feat accomplished by this intrepid band of warriors. No mention is made, in this passage, of inflated skins being utilised, and it would seem that such a device on this occasion was not employed. In any event it constitutes an exploit of which any army, ancient or modern, could be reasonably proud. But hunger, combined with a deplorable lack of initiative on the part of Jovian, was rapidly sapping the iron discipline of the Roman legions. The engineers, in spite of their promises, failed to bridge the river,[4] and, after a further two days of inactivity were passed without supplies being procurable, the red head of mutiny again raised itself, and the starving soldiers became furious at this state of inertness.[5] Sapor evidently considered the time ripe to make overtures for peace, acquiring by diplomacy what he would never have achieved by force of arms. The Surena and another noble were despatched to the Roman camp to present the conditions of peace,[6] under

[1] Appendix 15, Bk. XXV. ch. 6, 13. [2] *Ibid.*
[3] *Ibid.* ch. 7, 2. [4] *Ibid.* 4. [5] *Ibid.* [6] *Ibid.* 5.

the cloak of humanity; and in reply Sallustius and Arinthæus went as ambassadors to Sapor's lines. The Persian King was still playing his cards with consummate skill. He had gauged the character of the new Emperor[1] as being a man of neither energy nor courage, and he knew also that he held the Roman army in the hollow of his hand. The destruction of the latter as a fighting unit did not cover, by any means, the entire scope of Sapor's ambitions. The conditions of peace included the restoration of five provinces,[2] namely, Arzanena, Moxoena, Zabdicena, Rehemena, and Corduena, together with fifteen fortresses, besides Nisibis and Sungara, and the important fortress called the Camp of the Moors. To secure the transference of these provinces, the aid of the spectre, hunger, was evoked. The settlement of the peace terms, we read, was discussed with great deliberation. In other words, procrastination was Sapor's slogan,[3] while four more days were passed by the Roman army in great suffering from want of provisions, more painful than any kind of torture. Within a fortnight of the death of Julian, this most ignoble treaty was ratified, a treaty which signalled the death-knell of the Roman Empire in the East. Starvation had fulfilled its ruthless mission. The Roman legions were demoralised beyond hope of recovery. The words of Ammianus[4] are pregnant with pathos :—

"When the trumpets openly gave the signal for crossing the river, it was dreadful to see with what ardour every individual hastened to rush into this danger, preferring himself to all his comrades in the desire of avoiding the many dangers and distresses behind him."

His lament, addressed to the Fates, for having signed the death warrant of Julian at the very moment when the

[1] Appendix 15, Bk. XXV., ch. 5, 8. [2] *Ibid.* ch. 7, 9.
[3] *Ibid.* 6. [4] *Ibid.* ch. 8, 2.

Roman Empire stood in the greatest need of his brilliant and daring leadership, breathes despondency in every line. His scorn and contempt for the ineptitude of Jovian are registered in words of fire.[1] It was nothing but an armed rabble that set out from the right bank of the Tigris opposite Daur to march to Nisibis. The Tigris route, owing to the rugged nature of the country at the Fattah (Jabal Hamrīn) gorge, was not attempted. The shattered remnants of the army struck inland, pushing through the Tharthar River defile to Hatra. But the cup of bitterness had not yet been drunk to its dregs.[2] Seventy miles of blistering desert had yet to be crossed. The arms and the baggage were thrown away; and, if the flesh of the camels and other transport animals, which had been slaughtered for food,[3] had not lasted somewhat longer than was expected, it is recorded that necessity might have driven the men to eat one another.[4] How the hearts of the inhabitants of Nisibis must have sunk when they witnessed this mass of fugitive soldiers crawling into the military camp pitched outside the city walls! To what straits a glorious veteran army can be reduced in the short space of six weeks by bad generalship, in combination with that demon starvation! Cannot one picture the entry of Julian into this frontier bulwark, if the inexorable hand of Fate had not struck him down in the early prime of his life? What a contrast that triumphal procession would have offered to the slinking arrival of Jovian, too ashamed as he was at his cowardly conduct in betraying the city, to cross its threshold! We may be perfectly certain that Julian would have cut his way through to Kirkuk at all risks and at any sacrifice. He must have fully realised that, after the battle of Kifri, any attempt to strike into the Tigris plains through the Adhaim defile must have spelt utter ruin to the army

[1] Appendix 15, Bk. XXV., ch. 7, 8, 10–13.
[2] *Ibid.* ch. 8, 6. [3] *Ibid.* 15. [4] *Ibid.*

and to Rome's eastern empire. The only salvation lay in following the route through the Kirkuk—Arbela valley to Mosul. Jovian did not possess the moral or physical courage to adhere to Julian's plan of campaign. He took the line of least resistance, and within the space of a month he had brought the Roman Empire in the east crashing to the ground. When the keys of Nisibin were handed over to the Persians, the barrier which had safely buffeted the waves of invasion was broken down, and the eastern hordes swarmed through the breach. Alas, that the Roman Empire and army could not have produced a Xenophon to lead their ranks safely through the ever-changing vicissitudes of a difficult retreat! There can be little doubt that had the opportunity presented itself, a leader of this calibre would have come to the fore; but, as Ammianus aptly puts it, the affair of the election of a successor to Julian was settled by a blind sort of decision of Fortune[1]; and as the standard-bearer of the Jovian legion informed King Sapor, when he deserted to the Persian camp—Jovian had been raised by a mob of camp drudges to a kind of shadow of the Imperial authority.[2]

But what of Julian? If the scathing character-study of Jovian as pronounced by Ammianus is true to life, surely his eulogy of Julian's personality is equally worthy of acceptance?

"Julian," he records, "was a man to be classed with heroic characters, and conspicuous for the brilliancy of his exploits and his innate majesty. For since, as wise men lay it down, there are four cardinal virtues—temperance, prudence, justice, and fortitude—with corresponding external accessories, such as military skill, authority, prosperity, and liberality, he eagerly cultivated them all as if they had been but one."

And where was Julian buried?

Popular tradition places the site of Julian's tomb

[1] Appendix 15, Bk. XXV., ch. 5, 8. [2] *Ibid.*

at a conspicuous mound a few miles to the north of the present-day town of Samarrah on the Tigris; but this supposition is erroneous. The last resting-place of such a brilliant leader would certainly not have been located in foreign soil. Nor would this situation tally with the records of Ammianus; for in their retreat to Daur the fort of Sumere must have been passed on the march, as it is stated that leaving Charcha on June 30, the army halted that night within thirty furlongs of Dura.[1]

On the other hand, the locale of Julian's tomb *is* described by Ammianus.[2]

This writer hands down to posterity the fact that—

"Being in excessive haste to depart from thence, [Antioch] he [Jovian] ordered decorations for the tomb of Julian, which was placed in the suburb, in the road leading to the defiles of Mount Taurus. Though a sound judgment would have decided that the ashes of such a prince ought not to lie within sight of the Cydnus, however beautiful and clear that river is, but, to perpetuate the glory of his achievements, ought rather to be placed where they might be washed by the Tiber, as it passes through the Eternal City, and winds round the monuments of the ancient gods."

If Julian can be classed as one of the most brilliant military leaders to whom this earth of ours has done homage, surely

THE BATTLE OF KIFRI

can with equal justice be included in the list of

THE DECISIVE BATTLES OF THE WORLD.

[1] Appendix 15, Bk. XXV., ch. 6, 9.

[2] *Ibid.* ch. 10, 5.

CHAPTER VII

BABYLON: ITS SIZE AND SYSTEM OF DEFENCES

THE problem of the size of Babylon constitutes a theme around which considerable controversy has, in the past, eddied. A perusal of the works of eminent orientalists would seem to reveal the fact that the issue has been discussed in a manner far too cursory in relation to its general extent and historical and archæological importance. In consequence, a wholly erroneous conception of the defensive system for Babylonia, and also for the city itself, has been deduced and placed before the scientific world as representing the system on which the fortifications were planned and constructed.

It is intended in the present chapter to deal with this intricate subject in a less perfunctory way; and it is hoped that a new outlook on the problems raised may be presented, with, perhaps, solutions widely different to those which have been previously accepted as authentic.

Now, in reviewing this question, it will primarily be necessary to fix definitely the era in which the Babylon as described existed.

Senacherib [1] in his Bavian Inscription, lines 34–54, records the complete destruction of Babylon in 689 B.C. The Babylon, therefore, the size and defensive system of which form the basis of the problem under discussion, is the city which came into being under the Neo-Babylonian Empire subsequent to this holocaust.

It will be expedient to examine initially the strategical

[1] Appendix 1.

system of defences commencing from the outermost fortifications and working rearwards to the actual city itself.

The great building monarch of this dynasty was Nebuchadnezzar II. About the year 607 B.C., Nineveh fell, and when Assyria passed under the sway of the Median monarchy, it became clear to Nebuchadnezzar that a life and death struggle between the two dominant powers, Babylon and Persia, was inevitable. In order, therefore, to prevent the extinction of Babylon as an empire, this king planned and brought to a successful issue the elaborate and highly ingenious scheme for the defence of the country and for the nerve-centre of his vast dominions.

Nebuchadnezzar places it on record [1] that :—

" In the suburbs of Babylon, from the causeway on the bank of the Euphrates to the middle of Kish, $4\frac{2}{3}$ Kaskal-Gīd of ground, I heaped up an embankment of earth and surrounded the city with large floods. That their overflow might not make holes in it, I secured it within with mortar and brick. To strengthen Babylon, above Opis to the middle of Sippar, from the bank of the Tigris to the bank of the Euphrates 5 bêru, a huge embankment of earth I heaped up and many waters, as the flood of the sea, I put about the city at a distance of 20 bêru.

Professor Langdon has very courteously tendered the following explanation of this passage :—

" In lines 60 to 64 of the inscription, Nebuchadnezzar records that he built a wall from the ' highway ' on the bank of the Euphrates to Kish (now Oheimir), and that this wall was $4\frac{2}{3}$ *bêru* long. A *bêru*, or kaskal-gīd, at this period was equivalent to 3·788 miles. Therefore, the length of this wall was slightly under $17\frac{1}{2}$ miles. The situation is like this. In lines 67–73 of my book we are told he built a wall from the Tigris above Opis to Sippar five bêru, or about $18\frac{3}{4}$ miles above the beginning

[1] Appendix 2, Inscrip. XIX., B. col. 6, lines 60 *et seq.*

of the Kish wall, and that this Opis—Sippar wall was 20 *bêru* long or about 74¾ miles."

Now, surely this interpretation has upset all preconceived ideas of the scheme for the outer defences of Babylonia as propounded by other writers of modern times? Of one point there can be no question. The fact that Nebuchadnezzar has handed down to us the information that the length of this rampart was about 74¾ miles has disposed once and for all of the supposition that its eastern extremity rested on the right bank of the Tigris in the vicinity of modern Baghdad.

The next question to be considered is whether the length of the wall as recorded in the inscription agrees with its length as marked on Map 1. Do not the figures, to all intents and purposes, coincide? May we not assume, then, that the *general* alignment as indicated on the plan represents faithfully its direction on the actual ground at the time of its construction. The expression "general alignment" is used advisedly, for it is quite possible that topographical considerations demanded a transference eastwards or westwards of a portion of the rampart. If it is conceded that the direction on the map is generally correct, from the angle due west of Tel Abir to Sippar, then let us turn to a consideration of the defensive utility of such an alignment.

Now, we have already advocated the idea that a continuous waterway existed from the basin above Nimrod's Dam as far as Babylon. We have also expressed the opinion that the upper section of this artery comprised the Archoüs Canal, taking off from Nimrod's Dam basin and emptying into the Aqar Kuf depression, and that the lower division consisted of a second canal connecting the Aqar Kuf lake with the Euphrates at Sippar. Is not the object of the alignment of the Opis—Sippar wall, then, perfectly clear? Was not the short north-eastern sector, with its maze of

subsidiary defences, built for the protection of Nimrod's Dam? And was not the long arm running S.S.E to Sippar constructed for the purpose of safeguarding the line of communication, in the form of the Archoüs Canal, the Aqar Kuf basin, and the Aqar Kuf—Sippar Canal? In this connection, a comparison with the defence of another similar waterway immediately strikes the military mind. At the commencement of the War we endeavoured to employ the Suez Canal as a line of communication between Europe and our eastern and southern possessions, and, in addition, we planned to use it as a defensive line, placing our fortifications on its western bank. Nebuchadnezzar cannot be held guilty of committing this unforgiveable strategical blunder. For the purpose of covering his line of water-communication, he threw out in front of it a massive fortified wall. Furthermore, this rampart was protected, certainly throughout a portion of its length, by a moat, and, in addition, may we not surmise that the Jali, the Izhaqi, and the two "desert" canals were also designed to act as defences for the brick rampart? It will also be noted that the wall cut across the Saqlāwiyah depression. Now, this part of the defensive scheme was brilliantly conceived. What information does the inscription convey? Nebuchadnezzar records that he heaped up a huge embankment of earth, evidently in the form of a dam, for he continues by stating that he fixed this earthen embankment within with a burnt-brick wall to prevent it being breached by the floods which it held up. Now, it is evident that the earthen embankment here spoken of, did not extend throughout the entire length of the wall, for Plate 3 shows us the wall itself with its bastions, and Xenophon records [1] that the wall of Media was built with burned bricks laid in bitumen, being twenty feet in thickness, and one hundred feet in height. Cannot we, then, deduce the fact that the section

[1] Appendix 6, Anab., II., IV.

of the wall constructed in the form of a dam must have represented that portion striking across the Saqlāwiyah depression? Furthermore, this basin could have been filled from two separate sources. Firstly, by cutting the regulator at the head of the channel, it could have been flooded with water from the Euphrates; and secondly, we may surmise that some or all of the Tigris canals, *i.e.* the Jali, the Izhaqi, and the two "desert" ones, also emptied into this natural depression. There is evidence, also, forthcoming to show that both these sources were operative. Artaxerxes II.[1] failed to cut the regulator on the Euphrates in front of Cyrus the Younger, and this omission led Cyrus to the belief, though erroneous, that the king did not intend to fight. Then when the retreating army of Cyrus reached the Saqlāwiyah depression, the waters from the Tigris canals *were* released, and the low-lying ground was flooded.

Now, it is self-evident that with this depression forming a continuous sheet of water from the left bank of the Euphrates up to the Opis—Sippar wall dam, an obstacle would have been thrown across the approaches to Babylon from the north which would have arrested the march of any invading force unprovided with boats. Surely this expanse of water is that referred to by Nebuchadnezzar when he relates that by means of this earthen embankment, with its supporting wall of burnt brick, he put many waters in front of the city as the flood of the sea.

The next problem which calls for discussion is the part played by the Aqar Kuf basin in the defence of Babylon. Herodotus may furnish us with the clue to this question. That ancient historian records [2] that the queen, whose name was Nitocris, dug a basin for a lake a great way above Babylon, close alongside the Euphrates,

[1] Appendix 6, Anab. I., VII.
[2] Appendix 5, Bk. I., ch. 185.

which was sunk everywhere to the point where they came to water, and was of such breadth that the whole circuit measured four hundred and twenty furlongs. When the excavation was finished, she had stones brought, and bordered with them the entire margin of the reservoir. The construction of such a reservoir " in a low ground in Babylon " is also recorded by Diodorus Siculus.[1]

Again, Herodotus tells us that when Cyrus the Great was besieging Babylon, he could make no progress against the place. Having placed troops at the point of entry and exit of the Euphrates into and out of Babylon, he now withdrew the unwarlike portion of his host, and marched to the place where Nitocris dug the basin for the river, where he did exactly what she had done formerly; he turned the Euphrates by a canal into the basin, which was then a marsh, on which the river sank to such an extent that the natural bed of the same was fordable.

Now, although this portion of the chronicle of Herodotus may not be considered as reliable as a historical record, yet may there not be a certain substratum of truth forming the basis of the narrative? Surely the defensive scheme for Babylon would have included a reservoir of water, not necessarily within its actual walls, but so arranged that an adequate supply of water would have been ensured within the confines of the city?

In any event, where should we suppose that the basin described by Herodotus and Diodorus Siculus was excavated?

The first thought will be that the Habbaniyah depression would represent this basin, but that supposition cannot be accepted, as Herodotus distinctly informs us that in 568 B.C. the basin had become a marsh, a topographical detail which could not be delegated to the Habbaniyah depression. Where, then, could this basin

[1] Appendix 10, Bk. II., ch. 1.

have been situated ? Surely, its location could not have been in any other position than in that of the Aqar Kuf depression ?

Does not this conjecture coincide admirably with military requirements ? Would not the reservoir for Babylon have been excavated within the outer defences ? Furthermore, what more suitable site could have been selected than that of the Aqar Kuf depression ? For it has been shown that it could have been, and was in all probability, fed from the Tigris at Nimrod's Dam basin by means of the Archoüs Canal, and although the Opis—Sippar wall served to dam up the Saqlāwiyah depression fed from the Euphrates, might we not infer that a canal with a regulator led from the basin outside the rampart to the reservoir within ? Again, as already stated, Herodotus tells us that in 538 B.C. the basin had become a marsh. From this topographical reference might we not deduce the fact that previous to the construction of the basin its site was also a marsh ?—and does not the narrative of Senacherib in his Persian Gulf expedition, when he dragged his fleet on rollers through the mud, corroborate this supposition ? The function of the Aqar Kuf depression in the general defensive scheme of Babylonia would therefore seem to be apparent. The next problem that presents itself for observation is, for what reason was the southern extremity of the wall placed at Sippar ?

Now, though methods of warfare are ever on the change, the principles of strategy are immutable. Is not the military student taught that one of the leading requisites of a defensive position demands that the flanks of such a defensive position should, if possible, rest on natural obstacles ? Was not this fundamental principle recognised by Nebuchadnezzar ? The northern extremity was placed on the Tigris and the southern on the Euphrates. Why, then, was Sippar in particular selected as the site of the southern termination ? Firstly,

in itself it was a fortified city, and in consequence it formed a pivot point which was actually in existence at the time of the construction of the wall. Secondly, did not Sippar form the very heart of the canal system that fed Lower Babylonia and Babylon itself? Was it not, therefore, essential that if the water supply for Babylon was to be conserved, Sippar would have to form one of the main links in the chain of defences? Have we, then, demonstrated with sufficient clearness the military reasons which dictated the selection of the alignment of the main outer defensive line of Babylonia in the shape of the Opis—Sippar wall? Could the scheme have been drawn up on a sounder basis? Had not these ancient engineers obtained a grasp of military and defensive principles which would compare favourably with that displayed by many of our present-day experts in their particular line of the art of war? Surely such a contention cannot be gainsaid?

We now come to the problem of the alignment of the wall that ran from the causeway in the suburbs of Babylon on the bank of the Euphrates to the middle of Kish. In this connection there is a slight topographical inexactitude to which attention might with advantage be drawn. Professor Langdon,[1] in his explanation of the passage, states that the Euphrates—Kish wall commenced at the causeway, 5 bêru, or 18¾ miles, below Sippar, and that the length of this wall was slightly under 17½ miles. Now, the whole distance from Sippar to Haimir in a direct line is 40 miles. It is obvious, therefore, that a discrepancy in distances has in some manner occurred; we cannot, therefore, mark off on the map 18¾ miles from Sippar, and state that the upper termination of the Kish wall was at that spot on the left bank of the Euphrates. Nor can we describe an arc of a circle with its centre at Kish and with a radius of 17½ miles, and indicate that spot as the point of

[1] Appendix 2, Inscrip. XIX., B. col. 6, lines 60–66.

commencement of the wall, for we have no definite data from which we could reasonably infer that the wall ran in a straight line and was not angled as in the Opis—Sippar rampart.

There is yet another aspect of the case which must be taken fully into consideration. Is the Araḫtu Canal identical with the Euphrates from Sippar to Babylon, or did it represent a separate and distinct waterway? The author inclines to the belief that the Araḫtu Canal represented the ancient canal of Babylon and that the Euphrates flowed more or less in its present bed to the westward. In this manner, the water supply of Babylon through the Araḫtu Canal, fed either from Tigris or Euphrates sources at Sippar, could be kept adequately regulated and under control. Let us now endeavour to ascertain whether this supposition of two separate waterways for the Araḫtu Canal and Euphrates can be substantiated or not by references in the various cuneiform inscriptions.

The notices containing topographical allusions to the Araḫtu Canal are numerous.

Senacherib,[1] when he utterly destroyed Babylon, tells us that he pulled down the city and houses from its foundation to its roof, and that he burned and destroyed it in the fire. Then he proceeds to relate that he removed the wall and moat, and houses of the gods, the towers of brick and earth, all there was, and threw them into the Araḫtu Canal.

Then Nabopolassar [2] records that when he conquered Assyria and reduced the land to a heap of ruins, he turned his attention to the reconstruction of E-teminanki, the zikkurat of Babylon, which had weakened and gone to ruin. He then relates how he provided workmen, the obedient subjects of his land, with pickaxes and spades and brick moulds of ivory, cedar, and wood of

[1] Appendix 1, Bavian Inscrip., line 51.
[2] Appendix 2, Inscrip. I., col. 1, lines 23–42; col. 2, lines 1–13.

Magan, and how he fashioned burnt bricks. Then this monarch narrates how he caused the Araḫtu Canal to bring mortar and pitch like the downpour of the rains of heaven, which are without measure, like great torrents.

The next reference chronologically is made by Nebuchadnezzar,[1] who states that his father built the moat walls of the Araḫtu Canal securely with mortar and burnt brick, and that Nabopolassar laid quays of burnt brick securely along the farther side of the Euphrates, but that he did not finish all the work. Nebuchadnezzar continues by chronicling that as for him, he built the moat walls of Araḫtu with mortar and burnt bricks and joined them with those of his father, making them very solid.

Then, again, this great building king relates[2] that his father had fixed securely with mortar and brick the moat-wall of the Araḫtu Canal, east of the city, from the Ishtar Gate as far as the Gate of the god Urash, and repeats the narrative of the continuation of the works as described above, both by Nabopolassar and himself.

Again, Nebuchadnezzar[3] emphasises the fact that his father had paid attention to the construction of moat-walls bordering the Araḫtu Canal.

The next allusion is of considerable topographical significance. Nebuchadnezzar describes how he opened an entrance, and smoothed a route for the beams—enormous beams of cedar, large and heavy, the quality of which was precious, the dark form of which was excellent—the abundance of Lebanon, which he transported by the Araḫtu Canal.

Yet, again, Nebuchadnezzar[4] in a later inscription hands down to posterity the fact that Nabopolassar and he himself constructed the moat-walls of the Araḫtu Canal towards the east from the Ishtar Gate to the Gate

[1] Appendix 2, Inscrip. I., col. 1, lines 35–45.
[2] *Ibid.*, Inscrip. XIII., col. 2, lines 8–16.
[3] *Ibid.*, Inscrip. XVII., col. 5, lines 5–10.
[4] *Ibid.*, Inscrip. XX., col. 2, lines 19–29.

of Urash, and once more it is mentioned in connection with this work that Nabopolassar had constructed an embankment wall of burnt bricks on the farther side of the Euphrates.

Finally, in inscription XXI., Nebuchadnezzar furnishes us with a very detailed description of this work, which partook also of a defensive in addition to a utilitarian measure. We read that :—

" alongside the moat-wall of the Araḫtu, which my father had built, I built a great moat-wall of mortar and brick, high as the hills along the wall . . . for the defence of the city, that my father had built, but which he had not completed, I carried high its head, I dug its moat down to the water level. 43 (?) cubits I built the great moat-wall, with the moat-wall my father had built I joined and strengthened it. A great wall of mortar and brick [I built], set mighty gate-ways in it, and set in its gates wings of cedar coated with bronze."

Such are the references contained in the cuneiform inscriptions to the Araḫtu Canal. Let us endeavour to elucidate from a study of the topographical notices, the extent and general direction of this canal.

It is not possible to gather much information from Senacherib's record, but that the canal must have been in close proximity to the city is evident, for the removal of such an enormous mass of debris to any distance would have entailed far too great a labour to render its expenditure worth being put into effect. Then Nabopolassar tells us how he utilised the Araḫtu Canal to bring the enormous quantity of mortar and pitch required for the re-construction of E-teminanki. From this statement we may deduce the fact that the Araḫtu Canal, and not the Euphrates, was, above Babylon, the channel employed for navigation purposes, for the bitumen would have been floated down from Hit, and Nebuchadnezzar's chronicle of the transportation of his cedar beams cut from the mountains of Lebanon would tend to confirm

this supposition. Then we have two references by Nebuchadnezzar to the Araḫtu Canal being situated to the east of the city.

What inferences can we draw from these details? Firstly, would it not seem apparent that the Euphrates was employed as the navigation channel as far as Sippar? Then from Sippar the Araḫtu Canal, systematically regulated and under full control, would have been utilised as the line of water-communication with Babylon. Next, if this proposition is acknowledged as tenable, then it follows that the surplus volume of the Euphrates must of necessity have flowed down a separate channel, situated on the Arabian side of the Araḫtu Canal, and not on the Tigris side. To the present day the course of the Euphrates west of the mounds of Kasr and Amran is clearly indicated on the ground. Are there any traces, then, of the site of the Araḫtu Canal within the precincts of Babylon? Nebuchadnezzar tells us in two distinct passages in his inscriptions that the Araḫtu Canal was situated to the east of the city. The question then arises—in what locality did the Araḫtu Canal empty into the Euphrates? The author has evolved a theory, which will be propounded in a subsequent part of this chapter, that the Araḫtu Canal discharged into the Euphrates' bed above the city, and that it took out again at a point farther down-stream and flowed eastwards.

Now, the keen observer, when wandering over the ruins of Babylon, will notice that immediately to the east and running parallel to the inner wall of Babylon, as shown in inset No. 2 to Map 1, there exists a broad artificial depression in the form of a moat, which extends southwards as far as the outer city wall. The author spent many hours on the ground in an attempt to determine the exit from this basin, but such was not traceable. The only feasible conclusion which could be arrived at was that no outlet existed at its lower extremity, but

that a lateral canal took out of its western wall somewhere centrally, and flowed in a westerly direction through the citadel. The author conceived the idea that this sheet of water formed that portion of the Araḫtu Canal mentioned in the cuneiform inscription as being to the eastward of the city.

But we have digressed from our original theme. Is it possible to identify the upper end of the Kish wall at the causeway on the Euphrates? Ammianus has furnished us with a clue to the solution of this problem, and we have already, in Chapter VI., produced arguments in favour of its site being located in the vicinity of Khan Nāsiriyah. If such a surmise is acceptable, then from Nebuchadnezzar's notice it follows that the confluence of the Euphrates and the Araḫtu Canal must have been either at or above this point. There is one most striking feature in this alignment of the Kish—Causeway wall, namely, that it is *exactly parallel* with the outer city wall as seen to-day; furthermore, it probably formed a continuation in a direct line of the Euphrates bed as indicated on Map 1. The defensive advantages accruing from the selection of such an alignment are obvious. The fact that its south-eastern termination was located at Haimir demonstrates that Kish was regarded as an essential pivot point in the general defensive scheme for Babylon. Corroboration of this inference may, perhaps, be sought for in the knowledge that Kish formed the site of the field of battle in which Senacherib in 694 B.C. accomplished the overthrow of Merodach Baladan, king of Kardunias, together with the soldiers of Elam, his helpers.[1]

The next problem—and it is one that modern scientific writers would have seemed to have approached in a manner hardly free from bias—is the question of the size of Babylon. In the following pages, let us endeavour to place before the reader a true summary of the evidence

[1] Appendix 1, Bellina Cyl., line 5.

which the author has been enabled to collect in connection with the size of Babylon, with a view to arriving at some definite conception of the grandeur of the city, as it rose proudly from the dead-level of the surrounding plain in the zenith of all its glory.

The excavations have settled one point definitely, namely, that either the broad or the narrow wall, or both, running north and south at Homera represent Nimitti-Bel.

Which wall, then, represented Imgur-Bel? Let us study Nebuchadnezzar's records in an endeavour to find an acceptable elucidation of this problem.

In Inscrip. I. this monarch describes [1] how :—

"From Babylon, Marduk's mighty city, the city of his supreme power, he, Nebuchadnezzar, completed its great walls Imgur-Bel and Nimitti-Bel."

Also, in Inscrip. VII., col. 2, lines 3 and 4, mention is made of the accomplishment of this work, and in Inscrip. IX., col. 1, line 41, this king relates how he finished Imgur-Bel, the great wall of Babylon, the city of the great lord Marduk. Again, the construction of these walls by Nabopolassar is repeated in Inscrip. XV., col. 4, and their completion by Nebuchadnezzar is further recorded in lines 22–26, col. 5, of the same inscription, also in lines 3 and 4 of Inscrip. XX., col. 2.

In these passages there is no direct evidence to show which wall represented Imgur-Bel, but in his ninth inscription Nebuchadnezzar designates Imgur-Bel as *the* great wall of Babylon. It would hardly seem that such a reference could be ascribed to either of the inner city walls. There is, however, further evidence recorded in the inscriptions bearing on this subject.

Nebuchadnezzar tells us [2] that his father planned a work which no previous king had done in that he enclosed

[1] Appendix 2, Inscrip. I., col. 1, lines 16–18.

[2] *Ibid.*, Inscrip. I., col. 1, lines 26–32; Inscrip. XIII., col. 1, lines 61–64, and col. 2, lines 1–5; Inscrip. XX., col 2, lines 3–16.

the city with two moat-walls of mortar and brick. Nebuchadnezzar further chronicles that as for himself, he built a third great moat-wall with mortar and brick alongside the second, and joined it and closely united it with the moat-wall which his father had constructed, laying its foundation down deeply upon the bosom of the abyss, and raising its top mountain-high.[1]

Then, again, we are informed that he triplicated the city wall in order to strengthen it, and caused a great protecting wall of burnt brick to run at the foot of the wall.

Further, it is recorded by Nebuchadnezzar[2] that he put Imgur-Bel and Nimitti-Bel, the great walls of Babylon, into good condition, and he proceeds to relate that he made the walls of *its* moat mountains high with mortar and burnt brick, and that he constructed *it* about the city to strengthen it, and that he placed in *its* great gates terrible bronze bulls and dreadful serpents ready to strike.

Now, in this extract it will be noted that the singular case is used throughout the latter portion of the description. It is clear, therefore, that the allusion is either to Imgur-Bel or Nimitti-Bel, but we have already shown that Nimitti-Bel represented one or both of the inner city walls; furthermore, neither of these walls can be taken as constructed about the city. May we not safely deduce, then, the fact that the wall referred to in this excerpt is the outer city wall?

Then, again, Nebuchadnezzar records[3] that he dug the moat of Imgur-Bel and reached the water-level, and built with mortar and brick recesses in the great wall, which he had made with mortar and burnt brick like a mountain that cannot be moved.

Now, both the inner city walls are made with crude brick, and the excavations have not revealed the

[1] Appendix 2, Inscrip. IV., col. 2, lines 3–8.
[2] *Ibid.*, Inscrip. VII., col. 2, lines 3–10.
[3] *Ibid.*, Inscrip. IX., col. 1, lines 46–51.

foundations of any burnt brick wall, so that the inference to be drawn would be that neither of these walls can have represented Imgur-Bel.

There is still another reference bearing on the subject. Nebuchadnezzar describes [1] how he joined his moat-wall to that which his father had fixed *and thus surrounded the city for protection.* Now, if Imgur-Bel is to be taken as one of the inner city walls, then it could not possibly have surrounded the city for protection.

What deductions, then, can we draw from an examination of these notices? Surely, all the topographical details would point to the fact that Imgur-Bel represented the outer city walls, which were also extended to the west of Babylon. There is nothing to show in these inscriptions [2] that the outer city walls on the west of Babylon were constructed on such a plan as to complete the quadrangle with Imgur-Bel on the east of the Euphrates, and there is no adequate reason to suppose that the line of wall which exists at the present day to the west of the Euphrates does not in fact represent the continuation of the outer city wall as it stood when Nebuchadnezzar reigned as king.

Now, if the outer wall can be designated as Imgur-Bel, we are then faced with the question of the existence and alignment of the " exterior " wall, the construction of which is repeatedly recorded by Nebuchadnezzar in his building inscriptions. Let us examine these passages and make an attempt to solve definitely this trenchant problem.

Nebuchadnezzar tells us [3] that he *placed about the city* a moat-wall of burnt brick *to the west of the wall of Babylon,* and in another passage [4] he informs us that a moat-wall of brick to the west of the fortification of

[1] Appendix 2, Inscrip. XV., col. 4, lines 32–33.
[2] *Ibid.*, Inscrip. I., col. 1, line 33; Inscrip. XIII., col. 2, lines 6 and 7; Inscrip. XV., col. 5, lines 34–37; Inscrip. XX., col. 2, lines 17 and 18.
[3] *Ibid.*, Inscrip. I., col. 1, line 33.
[4] *Ibid.*, Inscrip. XIX., B. col. 5, lines 22 and 23.

Babylon he put around, and yet again this monarch intimates [1] that he caused a moat-wall of brick to *encircle the outer wall of Babylon* towards the west.

Now, put into plain English, what do these statements indicate? Surely the meaning is clear? Cannot we accept these declarations as intimating that beyond the outer city wall lying to the west of the Euphrates an exterior rampart was built from the Euphrates above the city to the Euphrates below the city, which encircled the western outer wall.

Furthermore, does not Nebuchadnezzar chronicle [2] that about the sides of Babylon he heaped up great banks of dirt, and that he made great floods of destroying waters like the great waves of the sea to flow about it, and that he surrounded Babylon with a marsh.

These details are also repeated in another record in which we are told that to prevent the enemy with evil intention from pressing on the sides of Babylon he surrounded the land with much water like the floods of the sea, and in order that the salt waves might not make a breach in them, as the surges of the bellowing sea, the bitter stream, he heaped up an embankment of earth for them, and placed around them a moat-wall of stone.[3]

Such is the evidence regarding the construction of an "exterior" rampart to the west of the Euphrates; let us now review the data concerning the existence of a similar wall to the east of the river, as recorded in the cuneiform inscriptions of Nebuchadnezzar.

That monarch tells us [4] that he did a thing which no king before him had done in that he constructed an enclosing wall to the eastward of Babylon for four thousand cubits beside the city at a great distance from the outer wall. Further, he specifies that he dug its moat and reached the water-level, and that he walled

[1] Appendix 2, Inscrip. XXI., col. 2, line 6.
[2] *Ibid.*, Inscrip. IX., col. 2, lines 10–14.
[3] *Ibid.*, Inscrip. XV., col. 6, lines 39–52.
[4] *Ibid.*, Inscrip. I., col. 2, lines 12–20.

up its sides with mortar and burnt brick, and that he securely united it with the moat-wall which his father had fixed, and that he built on its edge a great wall of mortar and burnt brick mountains high.

Then, again, Nebuchadnezzar narrates [1] that, in order that the front of the battle-line might not draw near to Imgur-Bel, the wall of Babylon, on the outskirts of Babylon he put round about the city a great wall to the eastward of Babylon.[2]

In another inscription,[3] the wording is slightly different; we read that in order that Imgur-Bel, the wall of Babylon, might not be within spear's throw, that which no former king had done Nebuchadnezzar did in that he threw about Babylon a huge wall to the eastward four thousand cubits along the city, far off, unapproachable.

Once more Nebuchadnezzar specifies [4] that to strengthen the defences of Babylon he did that which no former king had done. Alongside of Babylon for four thousand cubits of ground, far away, not near, from the bank of the Euphrates above to the bank of the Euphrates below the town, he put about the city a huge wall to the east of Babylon. Nebuchadnezzar further narrates that he dug its moat and within he fixed it with mortar and brick, and that he built upon its bank a huge wall of mortar and brick like a mountain, fastening its gigantic gates in it, and covering its doors of cedar with brass.

Finally, Nebuchadnezzar intimates [5] that what from all ages no king had done, he did, in that he surrounded Babylon from . . . to the banks of the Euphrates below the city with a mighty moat-wall of mortar and bricks.

Let us now analyse these details and endeavour to elucidate their interpretation. If the outer city wall

[1] Appendix 2, Inscrip. IV., col. 1, lines 1–16.
[2] *Ibid.*, Inscrip. IX., col. 2, lines 1–6.
[3] *Ibid.*, Inscrip. XV., col. 6, lines 22–27.
[4] *Ibid.*, Inscrip. XIX., B. col. 6, lines 46–58.
[5] *Ibid.*, Inscrip. XXI., col. 1, lines 26–32.

can be identified with Imgur-Bel, then it is evident that the wall referred to in these excerpts must have been constructed farther to the eastward, commencing from a locality on the Euphrates above the city to a point on the Euphrates below the town.

The next question that calls for comment is in relation to the figure of four thousand cubits. Does not Nebuchadnezzar repeatedly tell us that the eastern face of his exterior rampart ran parallel to, and at a distance of four thousand cubits from, Imgur-Bel? Is it a mere coincidence that this alignment, when continued north-westwards, strikes a group of mounds located evidently on the ancient bed of the Euphrates? The square marked on map 1 has been drawn to the data mentioned above, but the western and southern faces should each be advanced an equivalent of 1½ miles to give a perimetre of 42 miles. One single glance will demonstrate the extraordinary defensive strength of this alignment, with the Kish Causeway wall flanking the eastern face, this avenue being blocked at its southern exit by marshes. Then on the west there is the Hindiyah bed, the Pallacopas canal of Alexander,[1] flowing directly in front of and parallel to that face, continuing past, and rejoining the Euphrates, below Borsippa, which barred the southern egress from this *cul-de-sac*. This potential alignment of the exterior rampart, based as it is on reliable historical and topographical data, and backed by sound military principles, cannot be lightly repudiated.

How do these inferences, then, compare with the statements contained in the records of the classical writers. One and all indicate the existence of such a wall, but they differ in the estimation of its circuit. If it is acknowledged, then, that such a wall *was* actually constructed, the obvious step to be taken now is to search laboriously on the ground, by means of excavation if

[1] App. 19, p. 322.

necessary, with the object of disclosing the foundations of this rampart.

The present writer, after a residence of six months spent at Hillah, during which time its environments were carefully examined, is convinced that a far greater amount of detail in the way of the streets mentioned by Herodotus [1] could be collected, if a combined archæological and topographical survey of the surrounding country were executed. In the course of such a survey, also, it is quite possible that indications of the site of the exterior rampart would be observed. In any event, of one fact we may rest assured, namely, that on the west of the Euphrates, the exterior rampart did not include Borsippa, for all the notices running through the cuneiform inscriptions of Nebuchadnezzar [2] plainly state that Borsippa formed quite a separate city.

In this connection, it may be remarked that the author located what was evidently the manufacturing quarter of Babylon, situated immediately outside the south-west corner of the wall of Hillah town. Its long, narrow alleys, flanked by the stalls of vendors, and workshops, together with spacious courtyards, are still clearly traceable. From this site a mass of specimens was recovered, ranging from stone and flint implements, through the Neo-Babylonian period of stamped bricks and pottery to Arab glassware and coinage, a Turkish piece, dated about 1810, having been identified. As one would naturally expect, it was served by a canal, the bed of which is discernible to this day. Would Nebuchadnezzar, when he was making his defensive preparations for a twenty years' siege of the city of Babylon, have allowed the manufacturing quarter to be situated outside his exterior rampart? Such a supposition cannot be entertained for one instant.

[1] Appendix 5, Bk. I., ch. 180.
[2] Appendix 2, Inscrip. I., col. 2, line 22; Inscrip. XV., col. 6, line 57.

A discussion of the defences of Babylon would not be complete without an investigation of the records handed down to us of what might be aptly termed the citadel, *i.e.* the area on which the palaces and temples stood, and the space contained within Nimitti-Bel and the Euphrates.

The first proposition that presents itself is that of the identity of the palaces. In this connection, it may be mentioned that no references will be made regarding the architectural construction of the actual buildings; only an identification of the palaces as excavated with those detailed in the cuneiform inscriptions will be attempted.

Nebuchadnezzar narrates [1] that at the upper tower of the Gate of Ishtar, from the bank of the Euphrates up to this Gate he built a great fortress of mortar and burnt brick to strengthen the side of the city, also that he placed down deeply its foundation upon the level of the sea in the depths of the waters of the abyss. He continues by saying that he raised its top mountain-high and made its watch-towers strong with great skill, rendering the city of Babylon as a fortress.

Now, this fortified palace is evidently represented by the ruins laid bare on the Kasr mound, as also the palace mentioned in Inscrip. IX., col. 3, lines 27–38. It is further evident that the reference by Nebuchadnezzar [2] to the construction of the palace in Irsit-Babili, in *the midst of Babylon*, is to the Kasr mound palace. Neriglissar's allusion [3] is probably to the same royal residence, *in the midst of Babylon*.

In another inscription Nebuchadnezzar records that in order that the throes of battle against Imgur-Bel, the wall of Babylon, might not draw nigh, for 490 cubits of ground along Nimitti-Bel, the outer wall of Babylon, he made with mortar and burnt brick to secure it two

[1] Appendix 2, Inscrip. VII., col. 2, lines 13–22.
[2] *Ibid.* Inscrip. XLVI., col. 1, lines 1–3.
[3] *Ibid.* Neriglissar Inscrip. I., col. 2, lines 15–30; Inscrip. XV., col. 8, lines 42–64, and col. 9, line 1, and lines 17–44.

huge moat-walls, also a fortress high as a mountain. He continues by relating that he built between them a construction of burnt brickwork, upon the top of which he built a great abode for his royal dwelling-place, and made it high with mortar and burnt brick, and *joined it to the palace of his father.* Nebuchadnezzar proceeds to tell us that in a favourable month, upon a lucky day, he placed its foundation upon the breast of the abyss, and raised its top like a rocky cliff, completing its work in fifteen days. The king adds that he caused a frieze of blue glazed stone to be laid around its top, and threw about it not only a great wall of mortar and burnt brick as a mountain, but a huge wall of immense stones, the booty of the mountains, and raised its top like a mountain to prevent the throes of battle of the evil man with dark intentions threatening the wall of Babylon, and making Babylon strong as a cliff.

Now, in this passage one palpable error has crept in which tends to obscure a true perception of the main topographical details being obtained. Reference is made to the statement that the fortress was constructed on a frontage of 490 cubits along Nimitti-Bel, the *outer* wall of Babylon. Now, excavations, as already stated, have proved definitely that Nimitti-Bel represented one or both of the crude brick *inner* walls of the city. Therefore it is obvious that the words "Nimitti-Bel" have been erroneously interpolated. To the construction of which fortress, then, does this record apply? May we not accept it as pertaining to the building of the fortified palace on Tel Babil. If such an interpretation is not admitted, then, as no other mention of a palace being constructed occurs—except that one in Inscrip. XXI., col. 2, lines 21–32, which obviously refers to the Kasr palace—the fact has to be acknowledged that references to the erection of the Babil fortress have been entirely omitted by Nebuchadnezzar from his building inscriptions. Taking into consideration the emphasis with

which that monarch chronicles his work in preparing the defences of Babylon, is it reasonable to suppose that no allusion should be made to the construction of such an important pivot-point as the fortress of Babil? No; such a contention is, on the face of it, most unlikely. The only argument, then, against this fortress being identified with that on the Babil mound is the statement that Nebuchadnezzar joined it to the palace of his father. However, this objection would not seem to be insurmountable. We may rest perfectly assured that the fortress on Babil *was* joined to the Kasr palace, either by a road or by a subway. The latter conjecture is supported by the history of Strabo,[1] who describes walls and fortresses with subterranean passages as being among the works of Semiramis.

In addition to the ramparts and fortified palaces, the details of which have already been described, Nebuchadnezzar records the construction of certain other defences.[2] The positions of some of these works would seem to be obscure. Thus we are told that from the right side of the Ishtar Gate down to the lower bastion of Nimitti-Bel on the east, reckoned 360 cubits frontage from Nimitti-Bel, as a defence he built a great fortress wall of mortar and bricks, high as the hills. Then we have recorded another link in the defensive scheme which was paramount in holding together in its entirety the chain of protective works. Nebuchadnezzar narrates that for the protection of Esagila and Babylon, that sandbanks might not collect in the river Euphrates, he caused to be made a great dike in the river of mortar and brick, also that he laid its foundation upon the abyss, and raised its top as high as a mountain.

Now, the author understands that, through the omission of any mention of the existence of this great dam in Professor Koldewey's book on the excavations

[1] Appendix 9, Bk. XVI., ch. 1, 2.
[2] Appendix 2, Inscrip. XXI., col. 2, lines 33–36.

at Babylon, the location of this barrage has not been determined. In regard to the general defensive scheme for Babylon, in what position should we have expected this dam to have been constructed? Nebuchadnezzar is particular in chronicling that it was built for the protection of Esagila and Babylon. Would not the only advantageous position be across the Euphrates at the angle formed by the extremities of the eastern and western exterior walls above the city? This basin would, therefore, firstly present a formidable military obstacle, for it would fill the whole channel, and in the low-water season it would cover the sandbanks which would otherwise be exposed, and, being unprotected, would afford a breach in the defensive perimeter inviting a besieger to use it as an avenue of approach into the interior of the defended area. Secondly, if the dam were situated as conjectured, two main objects would be fulfilled. The existence of this barrage would necessarily form an extensive basin in the river-bed, and the level of the water would be raised above that of the surrounding country. Owing to the level of the water in the basin upstream of the dam being raised above the surface of the plain, the entire country on both sides of the river *beyond* the exterior ramparts could be flooded at will; and does not Nebuchadnezzar record [1] how such floods actually formed part of the general defensive scheme for the protection of the city?

Can we produce any evidence, however, to show that this dam, and its concomitant basin, ever, in history, played a prominent part in the defence of Babylon against the invader? Let us study the records of Cyrus the Great's expedition against Babylon subsequent to the battle of Opis, and ascertain what light the narrative of this decisive campaign throws on the scope of the defensive works of this great metropolis.

[1] Appendix 2, Inscrip. IX., col. 2, lines 12–14; Inscrip. XV., col. 6, lines 39–43.

Firstly, the Cyrus Cylinder[1] tells us that Marduk allowed Cyrus to enter Babylon, his city, without a struggle or combat. Next, the Nabonidus Chronicle[2] relates that:—

"In the month Tammuz, when Cyrus at Upê on the bank of the Tigris did battle with the army of Akkad he conquered the inhabitants of Akkad; whenever he assembled he slew the people. On the 14th Sippar was taken without a battle—Nabu-na'id fled. On the 16th Ugbaru, the Governor of Gutium, and the warriors of Cyrus without a struggle entered into Babylon.... Owing to delay Nabu-na'id was taken prisoner in Babylon. Until the end of the month the shields of Gutium encircled the gates of Esakkil; no man's spear penetrated into Esakkil or into the sanctuaries, nor was any festival passed over. On the 3rd of Marchesvan made Cyrus his entry into Babylon. *Harine* were spread before him. Immunity was granted the city, Cyrus proclaimed to the whole of Babylon peace."

Now, these two excerpts state most distinctly that Babylon was captured without a battle being fought. There is, however, one point in the Nabonidus Chronicle which on the face of it would hardly seem worthy of credence. It is implied that Cyrus the Great was not present with the army when Babylon fell to his troops. Now, if the study of ancient military history teaches us one thing, it is that victory depended to a very large degree on the personality, the individual prowess, and, above all, the presence of the King with his army when battle was joined. Is it at all likely, then, that Cyrus would have absented himself at the psychological moment, knowing that the integrity of the whole of the vast empire which he had built up so laboriously by conquering nation after nation depended on the capture of Babylon? No; may we not rest perfectly assured that a chief of Cyrus' acumen would, at this critical

[1] Appendix 3, line 17.
[2] Appendix 4, col. 3, lines 12–19.

moment of his life, have at all hazards led his troops to the crowning victory of all his glorious achievements, and not entrusted the command to Gobryas, who himself had been a deserter from the enemy's camp? Would it not, therefore, be more expedient, instead of accepting the records of the Nabonidus Chronicle as an unimpeachable authority, to take it in conjunction with the statements of other early historians? Let us, then, examine the narratives of Herodotus and Xenophon, and compare their statements with each other, and also where applicable with the records contained in the cuneiform inscriptions.

Herodotus tells us [1] that after dispersing the Gyndes, Cyrus marched forward against Babylon with the first approach of the ensuing spring, and that a battle was fought at a short distance from the city, in which the Babylonians were defeated by Cyrus, with the result that the Babylonians retired within their defences. Herodotus continues by narrating that the Babylonians made light of the siege, having laid in a store of provisions for many years against this attack, for when they saw Cyrus conquering nation after nation, they were convinced that he would never stop, and that their turn would come at last.

Now, the battle referred to by Herodotus is evidently the battle of Opis. Does Xenophon, in his Cyropdaeia, make any mention of such a battle having been fought? At this juncture it may perhaps be advisable to interpolate a few remarks. There would seem to be an inclination on the part of scholars to regard Xenophon's Cyropaedia as mere fiction, and in no way to be accepted as a reliable chronicle of events. The present writer does not hold with this opinion. He considers that in many details Xenophon recorded as faithfully as lay within his power the passage of events in connection with the reign of Cyrus the Great, as was in circulation

[1] Appendix 5, Bk. I., ch. 190.

at the time when he compiled this historical work. But even setting this expressed opinion on one side, it cannot be denied that fiction is frequently founded on fact. So, whether this work of Xenophon is regarded in the light of a novel, or a genuine endeavour to hand down to posterity a record of events that actually happened, it must be admitted that many of the details described may have occurred in reality.

But let us return to our theme. Xenophon [1] records that Cyrus, in his exhortation to his leaders immediately prior to his night advance along the river-bed, bids them remember that their enemies are the same as those which they defeated when they had allies with them, and when they were all awake, sober, armed and in order. As we have already mentioned, this allusion to a previous victory might very well be taken as referring to the battle of Opis. Now, as regards the statement that the Babylonians made light of the siege as they had laid in a store of provisions for many years: this point is also brought to notice by Xenophon,[2] and, furthermore, Nebuchadnezzar relates [3] that he stored up in Babylon great quantities of grain beyond measure.

Quintus Curtius Rufus [4] also records that the area inside the wall was ploughed and sowed, that in case of a siege the place might be fed by its own produce.

Next, Herodotus [5] describes how Cyrus drained the Euphrates preparatory to entering Babylon. It is evident that the method which Herodotus portrays was by diverting the water into the Aqar Kuf basin by means of the Saqlāwiyah Canal. Now let us compare this report with the details as narrated by Xenophon.[6] That historian relates how Cyrus caused a broad and deep

[1] Appendix 7, Bk. VII., ch. 5, sect. 20.
[2] *Ibid.* sects. 1, 3.
[3] Appendix 2, Inscrip. IX., col. 3, lines 21–26.
[4] Appendix 11, Bk. V., ch. 4.
[5] Appendix 5, Bk. I., ch. 190.
[6] Appendix 7, Bk. VII., ch. 5, sects. 9–12.

trench to be dug *on each side of the wall*, leaving an unexcavated space at the upper extremities of each trench on either bank of the Euphrates. What, then, is the meaning of the passage which has been italicised? Surely Xenophon intended to convey the information that a trench was dug parallel to and outside the wall on each bank of the Euphrates. The object of throwing the earth dug from the trenches on the side towards their own camp is obvious; for if the capacity of the trenches was not equal to holding all the water from the Euphrates, then the overflow would be confined to the space between the exterior wall of Babylon and the embankment; and thus the flooding of Cyrus' camp would be obviated. The motive for building the towers at intervals along the river embankment adjoining the upper extremities of the trenches, and also on the parapet on the river side of the trenches, is also plain. If the Babylonian commander had been gifted with the slightest degree of foresight, he would have recognised at once Cyrus' plan to divert the waters of the Euphrates, and would have attacked immediately with the intention of frustrating this scheme.

In order to meet this prospective sortie, defensive measures in the form of the construction of towers had to be put into effect. However, the Babylonian leader failed to penetrate the scope of Cyrus' plan, and Cyrus cutting the river embankment on either side allowed the waters to flow into the trenches. Now, is it not obvious on the face of these details that the locale of this drainage scheme *was at the basin formed by the dam across the Euphrates as constructed by Nebuchadnezzar?* Is not the course of subsequent events quite clear? The effect of cutting the lateral river embankments was to lower forthwith the level of the basin. In actual fact, the scheme evolved by Nebuchadnezzar for flooding the lands on the outside of the exterior wall, both to the east and west of the Euphrates, was adopted by Cyrus

to serve his own ends. With a chief worthy of that title the plains would have been flooded, and the basin again filled up before Cyrus with his host had ever reached the exterior ramparts of the city. If Belshazzar was slain at the battle of Opis, then the perpetration of this inexcusable piece of neglect is easily explained, for the army would have been leaderless; and the very fact that the plan for letting loose the floods was not put into execution might very well point to the fact that Belshazzar was killed at the battle of Opis. The effect of lowering the basin above the dam would, firstly, be to expose sandbanks in the bed of the river, and, secondly, the stoppage of any flow of water over the spill-channel into the bed below the barrage; and the bed downstream of the dam would then become to all intents and purposes dry. Now, the author does not wish to assert that this drainage plan was actually carried out by Cyrus, what he does wish to emphasise is that the scheme as propounded by Xenophon could in reality have been put into effect by Cyrus. Of one fact, however, we may be positive. If Cyrus *did* put this plan into force, the site of the barrage would have been, as clearly indicated, across the bed of the Euphrates at the angle formed by the upper terminations of the eastern and western exterior walls. Consequently, if the foundations of this dam could be discovered *in situ*, then we should also be placed in a position to determine the alignments of both the exterior ramparts of the city to east and west of the Euphrates.

Now, as regards the size of Babylon, the theme, as already stated, is one around which controversy has eddied to a marked degree. The various classical writers, as may be gathered from the appendices, agree more or less with each other in the estimation of the length of the outer perimeter, with the exception of Herodotus, whose figure exceeds that of the later historians. The present writer holds the opinion that

the gist of this discussion has been misdirected. If the fact is once accepted that an exterior rampart existed both to the east and west of the Euphrates, then excavation alone can decide its length. Reliance cannot possibly be placed on the statement of any one ancient chronicler in preference to the records handed down by any other. Actual measurement on the ground must prove the sole determinative factor. All that it is intended to do in this book is to produce evidence, if possible, to refute the argument that the classical writers were guilty, without exception, of exaggerating in a wholly inexcusable manner the size of this world-famous city. From the military view-point, the manœuvre by which Cyrus withdrew his army [1] from encircling the outlying ramparts of Babylon is of engrossing interest, but the scope of this work is not designed to enter into a review of ancient tactics; suffice it to say that Xenophon relates that as Cyrus' men encompassed a great extent of wall, his line was, of necessity, of little depth. Now, if we can with any degree of accuracy indicate the numbers of Cyrus' army, we should have a fairly reliable guide to show us whether Professor Koldewey's estimate of eleven miles as the extent of the perimeter is correct, or whether the computation of 365 stadia is closer to the mark. Xenophon [2] relates that when Cyrus was preparing to draw off his army from before the city, a deserter coming from the Babylonians told him that they intended to fall upon him as he was leading the army away, for as the Babylonians surveyed Cyrus' army from the walls his line appeared to them to be but weak. Now eleven miles of wall represents 19,360 yards, thus if Cyrus had placed a man per yard in his line his forces would have totalled approximately the insignificant figure of 20,000. On the other hand, if this number were materially

[1] Appendix 7, Bk. VII., ch. 5, sects. 1–6.
[2] *Ibid.* sect. 2.

increased, then it could not be asserted that Cyrus' line was weak. But what information does Xenophon [1] give us regarding the numbers of Cyrus' army? We are told that Cyrus arrived at Babylon with a vast number of cavalry, a vast number of archers and javelin-men, and of slingers a countless multitude; and in the same passage Xenophon records that Cyrus in his march to Babylon subdued the Phrygians of Greater Phrygia, also the Cappadocians, and reduced the Azalians to submission, and that out of all these he made up not less than forty thousand horsemen.

Now, if this statement can be accepted as bordering on the truth, the assertion that the extent of the walls of Babylon amounted only to eleven miles is at once challenged. Can we produce, then, any proof to corroborate this estimate of the numbers of Cyrus' host? Certainly such evidence is forthcoming. In the Cyrus Cylinder [2] it is recorded that Marduk, the great Lord, the Guardian of mankind, looked with joy at Cyrus' pious acts and his just heart, and ordered Cyrus to betake himself to his city of Babylon, made him take the way to Babylon, going as a friend by his side. It is further chronicled that Cyrus' far-spread troops, *whose number like the waters of the sea is unknown*, went armed by his side. Then, again, we have the Biblical reference,[3] which may or may not be regarded as admissible, that "the Lord of Hosts hath sworn by Himself, saying, Surely I will fill thee [Babylon] with men as with caterpillars; and they shall lift up a shout against thee."

Must it not be admitted that the evidence as summarised above could be taken as proof that the numbers of Cyrus' army were legion, and, in consequence, that the extent of the exterior ramparts of Babylon would

[1] Appendix 7, Bk. VII., ch. 4, sect. 16.
[2] Appendix 3, lines 14–16.
[3] Appendix 20, ch. li., v. 14, Jeremiah.

be represented by the 365 stadia of the classical writers rather than the conjectural eleven miles of Professor Koldewey ?

Then, again, in another passage, Herodotus [1] relates that owing to the vast size of the place, the inhabitants of the central parts, long after the outer portions of the town were taken, knew nothing of what had chanced, but as they were engaged in a festival, continued dancing and revelling until they learnt the capture too certainly. Further, Jeremiah, in chap. li., verse 31, expressly states that "one post shall run to meet another, and one messenger to meet another, to show the king of Babylon that his city is taken at one end."

May we not infer, then, also, from these two notices, that the enceinte of Babylon corresponded to the measurement as recorded generally by the classical writers ?

Let us next examine the extracts taken from the ancient historians, and review any details that may call for comment.

The description of Babylon by Herodotus is most vivid. His account of the fence of burnt brick which lined both banks of the Euphrates, and which was furnished with low gates, gives us another important proof of the prescience of Nebuchadnezzar when drawing up his defensive scheme for the protection of the city. It is plain that he foresaw the possibility of the Euphrates being diverted and the channel in consequence being laid bare, and to prevent either division of the city being penetrated from the bed of the river, the base of each right-angled triangle was also walled, and when Cyrus *did* enter Babylon by this approach, if the Babylonians *had* closed and defended the gates in the side walls, then, as Herodotus aptly puts it,[2] Cyrus' troops would have been caught as it were in a trap.

Pliny also remarks on the quays of marvellous workmanship erected on either side of the Euphrates.

[1] Appendix 5, Bk. I., ch. 191. [2] *Ibid.*

Herodotus describes how the streets all ran in straight lines, both those parallel to the river, and also the cross streets leading down to the water-side, and he states that the houses were mostly three and four stories high.[1] Once again the author desires to emphasise the fact that a detailed survey of the area round Babylon might well disclose the remains of these streets. When stationed at Hillah the weekly route-march was usually conducted along the main route to Musaiyib. Adjoining this road on its northern edge, a double earthen ridge was noticed running in a direct line from the ruined mosque about three-quarters of a mile N.W. of the bridge over the river to Imam Saiyid Idris, a distance of about five and a half miles. That this double ridge represented one of the ancient streets of Babylon was, in the present writer's opinion, unquestionable; for if such were not the case, then what could it originally have denoted?

Further, to the south-east of the town of Hillah are to be seen similar ridges of earth indicating the sites of ancient thoroughfares.

Now let us review the details specified by the ancient writers regarding the divisions of Babylon. Herodotus[2] tells us that the city stands on a broad plain. Quintus Curtius Rufus[3] narrates how the beauty and symmetry of the city struck Alexander and all who for the first time beheld it, and he continues by specifying that the *citadel* was twenty stadia in circumference.

Flavius Josephus[4] records how Nebuchadnezzar added another city to that which was there of old, building three walls of burnt brick round about the *inner city*, and three others about that which was the *outer*.

Then, again, Strabo,[5] in talking of Nineveh, describes how the *city* of Nineveh was much larger than Babylon.

[1] Appendix 5, Bk. VI., ch. 30.
[2] *Ibid.* Bk. I., ch. 178.
[3] Appendix 11, Bk. V., ch. 4.
[4] Appendix 12, Bk. X., ch. 11.
[5] Appendix 9, Bk. XVI., ch. 3.

Yet in a later passage[1] this historian tells us that the wall of Babylon is 385 stadia in circumference.

Is it possible to build up, then, from these details an accurate conception of Babylon as it stood when completed by Nebuchadnezzar?

First of all we have the *outer city* on both banks of the Euphrates, surrounded by a broad moat and massive wall of burnt brick.[2] This rampart contained gigantic gates with doors of cedar covered with brass.[3] It was furnished with towers, and was of sufficient width to allow of chariots with four horses passing with ease.[4] The sides of this rampart were protected by floods and a marsh,[5] and it surrounded the area termed by Flavius Josephus[6] as the *outer city*. An interval of 100 to 200 feet was left clear of houses on the inside of the wall.[7] The space contained within this rampart was not entirely filled with streets, but was ploughed and sowed that, in the case of a siege, the place might be fed by its own produce. The streets all ran in straight lines,[8] not only those parallel to the river, but also the cross streets which led down to the water-side, and the houses were mostly three and four stories high. The exterior ramparts were brought down on both sides to the edge of the Euphrates; thence, from the corners there was carried along each bank of the river a fence of burnt bricks. At the river end of the cross streets were placed low gates in the fence, which were like the great gates in the outer wall, of brass, and opened on the water.[9]

At some considerable distance from the exterior ramparts there was a second inner wall of less thickness than the former, namely, the Imgur-Bel of the cuneiform

[1] Appendix 9, Bk. XVI., ch. 16.
[2] Appendix 5, Bk. X., ch. 11.
[3] Appendix 2, Inscrip. XIX., B. col. 6, lines 37–39.
[4] *Ibid.* Inscrip. IX., col. 2, lines 10–14.
[5] Appendix 9, Bk. XVI., ch. 5; Appendix 10, Bk. II., ch. 1.
[6] Appendix 12, Bk. X., ch. 11.
[7] Appendix 11, Bk. V., ch. 4.
[8] Appendix 5, Bk. I., ch. 180.
[9] *Ibid.* ch. 181.

inscriptions, made of crude brick and strengthened on its outer side by the burnt brick wall constructed by Nebuchadnezzar, together with its accompanying moat, and with a strong fort at its northern angle in the form of the fortified palace of Babil. The area enclosed by Imgur-Bel would represent the *inner city* of Flavius Josephus, and prior to the reign of Nebuchadnezzar this space, surrounded by Imgur-Bel, would have denoted the more ancient city of Babylon.

Within the inner city, again, stood the citadel,[1] enclosed by Nimitti-Bel and the Euphrates, with a circumference of twenty stadia. This area in its turn represented the confines of the original Babylon, dating from the reign of Khamurabi; it contained the fortified palaces of the king, the temples of the gods, and the houses of the nobles, together with the habitations of the retinue of the monarch and his courtiers.

Nimitti-Bel was protected to the east by a broad moat which would seem to have been carried down to Imgur-Bel on the south.[2]

The outstanding feature of the citadel was the procession street with the famous Gate of Ishtar, both the street and gate being decorated with the enamelled bas-reliefs of bulls, lions, and dragons, and the crowning glory of the citadel was the hanging gardens, situated on the roof of the palace of the Kasr mound. Lastly, but by no means least in importance, was the stone bridge which spanned the Euphrates opposite the south-west corner of the peribolos of E-teminanki, or the Tower of Babylon.

Such, then, was the Babylon of Nebuchadnezzar. Cannot we picture in some small degree the truly magnificent sight that must have met the eye of this king of ancient kings from the cooling shade of his palace roof-garden when he surveyed the results of his engineering

[1] Appendix 11, Bk. V., ch. 4.
[2] Appendix 2, Inscrip. XV., lines 38–52.

handiwork? Away to the south-west rose the seven-staged tower, Eturiminanki, of the separate city of Borsippa. The horizon towards the four cardinal points was bordered by his huge exterior rampart, and beneath his feet flowed the placid water of the Euphrates. Surely Nebuchadnezzar was not uttering an idle rodomontade when he exclaimed—

IS NOT THIS GREAT BABYLON THAT I HAVE BUILT!

APPENDICES

APPENDIX 1

HISTORY OF SENACHERIB

Translated from the Cuneiform Inscription by GEORGE SMITH, edited by the Rev. A. H. SAYCE, M.A.

PART II

BELLINO CYLINDER

(Lines 5 to 19)

(5) IN the beginning of my kingdom, of Merodach Baladan king of Karduniash, together with the soldiers of Elam his helpers, in the vicinity of Kish I accomplished his overthrow. (6) In the midst of that battle he abandoned his camp, alone he fled, and to the Guzummani he retreated. Into the lakes and swamps he entered, and his life he saved. (7) Chariots, carriages, horses, asses, mules, camels, and dromedaries, which in the midst of the fight he had abandoned, my hand captured. (8) Into his palace, which is in Babylon, joyfully I entered, and I opened also his treasure house; gold, silver, instruments of gold, silver, precious stones, everything, furniture and goods, a great treasure, (9) his consort, the eunuchs of his palace, the great men, those who stand in the presence, the whole of the army, all there were guards of the palace, I brought out and as spoil I counted. (10) Having seized it, after him to Guzummani, my soldiers to the midst of the lakes and swamps I sent; and five days they searched, and his place was not seen.

(11) By the might of Assur my lord, 89 strong cities, fortresses of Chaldea, and 820 small cities which were round them I besieged, I captured. I carried off their spoil. (12) The Urbi, Arameans, and Chaldeans, who were in Erech, Nipur, Kiš, Harsag-kalama, and Cutha, together with the sons of the cities, rebels, I brought out and as spoil

I counted. (13) . . . .[1] (14) On my return, the Tu'muna, etc., etc., not submissive, altogether I captured. 208,000 people, men and women, 7200 horses and mules, 11,073 asses, 5230 camels, 80,100 oxen, 800,500 sheep, a great spoil I carried off to the midst of Assyria. . . . (18) The people of Hirimmi, obstinate rebels, who from of old to my yoke were not submissive; with the sword I destroyed, and [one] alive I did not leave.

NOTE.—The Taylor Cylinder has the following passage:—"By the might of Assur my lord, (Col. I. 34) 75 of his strong cities fortresses of Chaldea, (35) and 420 small cities which were round them, (36) I besieged, I captured, I carried off their spoil. (37) The Urbi, Arameans, and Chaldeans, who were within Erech, (38) Nippur, Kish, Harsagkalamma, Cutha, and Sippara, (39) with the sons of the cities, rebels, I brought out and as spoil I counted. . . ."

PART VII

BULL INSCRIPTION NO. 2

THE EXPEDITION TO THE PERSIAN GULF[2]

In my sixth campaign, I marched against the city Nagiti and the city Nagitidi, bina, cities of the king of Elam, whose abode is situated beyond the Bitter Stream, in whose midst the peoples of Bit-Jakin (who before the mighty weapons of Aššur had fled and had abandoned their homes and crossed the Bitter Stream) had wickedly prepared hostility against me. . . . The god Aššur gave me confidence, and I commanded to go against them unto the land Nagiti. Men of the Hittite land, the conquest of my bow, I caused to dwell in Nineveh. Mighty ships the work of their land they built skilfully. Sailors of Tyre and Sidon and from the land of the Ionians the conquest of my hands—I caused them to receive orders. In the Tigris they descended on dry land to Opis with them laboriously. From Opis by land they transported them and on rollers (?) they drew them as far as [the city (?) U. . . .] In the Arahtu canal they placed them.

[1] Here the Bellino Cylinder inserts a reference to Bel-ibni, the Chaldean, who was appointed governor of Babylon.

[2] Text in Smith, *Senacharib*, p. 91.

PART IX

THE FINAL CONQUEST OF BABYLON

TAYLOR CYLINDER

(Col. 5, line 5, to Col. 6, line 24)

(5) In my eighth expedition, after they had detached Šuzub (6) the sons of Babylon evil spirits, the great gates of the city locked, and their hearts plotted to make war . . . (16) from Elam he [Šuzub the Chaldean] came, and into Babylon he entered, (17) and the Babylonians seated him unlawfully on the throne. . . . A great gathering (39) assembled unto him (Ummanminan). Their host the road to (40) Akkad took, and they came up even unto Babylon, (41) to Šuzub the Chaldean, king of Babylon, to (42) each other they drew nigh and united their legions. (43) Like the coming of swarms of many locusts on the face of the country, (44) together to make battle they came up against me. (45) The dust of their feet like a heavy (46) storm of rain clouds, the face of the wide heaven (47) concealed; in front of me. In Halule (48) which on the bank of the river Tigris is situated, the battle lines (49) in front of my camp were placed, and they annointed their weapons. . . . (63) By command of Aššur, my lord, on the flanks and front, (64) like the shock of a raging storm, I rushed against the rebels. By the weapon of Aššur my lord, and the shock of my fierce (66) attack, their front I drove back, and their overthrow I accomplished.

BAVIAN INSCRIPTION

(Lines 43 to 54)

In my second expedition I hastened to Babylon which I planned to capture. (44) Like the shock of a storm I rushed, and like a hailstorm I swept it. The city with obstruction I surrounded and by (45) breaches and inroads my hand captured, its people small and great I did not leave and their corpses the carrefours of the city (46) filled. . . . The city and houses (51) from its foundation to its roof I pulled down, destroyed, and in the fire I burned. The wall and moat, and houses of the Gods, the towers of brick and

earth, all there was, (52) I removed, and into the Arahtu canal I threw. In the . . . of that city ditches I excavated, and its earth into the waters I swept. The position (53) of its foundation I destroyed, and worse than a whirlwind its . . . I made. That in after days the location of that city and the temples of the Gods (54) be seen no more into the waters I cast it and ended it entirely.

APPENDIX 2

DIE NEUBABYLONISCHEN KOENIGSINSCHRIFTEN

Building Inscriptions of the Neo-Babylonian Empire, by STEPHEN LANGDON, translated by E. M. LAMOND.

NABOPOLASSAR I

Col. 1.—(1) To Marduk, great lord, etc. . . . (23) When . . . (29) I conquered Assyria and reduced the land to a heap of ruins, (32) then as to E-teminanki, (33) the tower of Babylon, (34) which before my time (35) had weakened and gone to ruin, (36) its foundation down upon the bosom of the under-world (40) Marduk the lord (41) commanded me (37) to place and make its head firm like heaven. (42) Pick-axes, spades and brick-moulds of ivory, cedar, and wood of Magan, I provided. *Col.* 2.—(1) I caused (2) numerous workmen, (3) the obedient subjects of my land, (4) to carry them, I made bricks, (7) I fashioned burnt bricks. (8) Like the down-pour of the rains of heaven which are without measure, (10) like great torrents (13) I caused the Araḫtu canal to bring mortar and pitch. . . . (40) By the authority of the priesthood, by the wisdom of Ea and Marduk (42) that place (43) I cleaned (44) On the original platform (46) I fixed its foundation-stone. . . . *Col.* 3.—(19) A temple after the pattern of E-bar-a (22) I made with joy and gladness; (23) and its head as a mountain I made high. . . .

NABOPOLASSAR II

Col. 1.—(5) When Marduk the great lord (8) sent me his important command (6) to care for the cities and rebuild the sacred places, (10) at that time at Sippar, (12) that grand city, beloved of Šamaš and Aja, (14) the Euphrates had turned aside too far from it. (15) For purifying (the

radiant dwelling) of their lordship (16) the waters had withdrawn too far to be dipped. *Col.* 2.—I Nabopolassar . . . (4) dug the course of the Euphrates to Sippar, (7) . . . . (10) The banks of that river (11) with mortar and burnt brick (12) I made secure. (13) For the comfort of Šamaš my lord, (14) a moat-wall (15) I laid down.

NEBUCHADNEZZAR I

Col. 1.—Nebuchadnezzar king of Babylon, etc., etc., am I. (11) When Marduk the great lord named me the legitimate son (12) and to direct the affairs of the land, to shepherd the people, (13) to care for the city, to rebuild the temples, (14) sent me in his great power, (15) I was tremblingly obedient unto Marduk my lord. (16) For Babylon his mighty city, the city of his supreme power, (17) Imgur-Bel and Nimitti-Bel (18) its great walls I completed. (19) Upon the thresholds of their great gates (20) strong bulls of bronze, (21) and terrible serpents ready to strike, (22) I placed. That which no king had done (26) my father did in that he enclosed the city with two moat-walls of mortar and brick. (27) As for me, a third great moat-wall, (28) one against the second (29) I built with mortar and brick, (30) and, with the moat-wall of my father joined and closely united it. (31) Its foundation upon the bosom of the abyss I laid down deeply, (32) its top I raised mountain high.

(23) A moat-wall of burnt brick to the west of the wall of Babylon I placed about the city.

(35) The moat-walls of the canal Araḫtu my father built securely with mortar and burnt brick, (38) quays of burnt brick (39) along the farther side of the Euphrates he laid securely (40) but did not finish all the work. (41) As for me . . . (43) the moat-walls of Araḫtu (44) I built with mortar and burnt brick (45) and joined them with those of my father, making them very solid. . . . (53) Etemin-anki the *ziggurat* of Babylon, (54) I rebuilt. (55) Ezida, the original temple, the favourite temple of Nebo, (56) I built in Barsippa. . . . *Col.* 2.—(12) A thing which no king before me had done I did (13) for 4000 cubits beside the city (14) at a great distance from the outer wall, to the eastward of Babylon I constructed an enclosing wall. (17) I dug its moat and reached the water-level. (18) Its sides I walled

up with mortar and burnt brick (19) and with the moat-wall which my father fixed I securely united it. (20) A great wall of mortar and burnt brick mountain high on its edge I built.

(22) Tabišupuršu, the wall of Barsippa, (23) I rebuilt, (24) the wall of its moat with mortar and burnt brick (25) I put about the city to strengthen it. (26) To Mar-biti-bêli, the god who breaks the weapons of my foes, (27) I rebuilt his temple in Barsippa . . . (36) the sacred temples of the great gods, (37) I rebuilt, (38) and completed their work.

(39) The caretaking of Esagila and Ezida, (40) the rebuilding of Babylon and Barsippa, (41) which I caused to be more magnificent than before, (43) I did according to instructions. . . .

NEBUCHADNEZZAR IV

Col. 1.—(1) Nebuchadnezzar, (2) King of Babylon, etc., etc., am I. (6) In order to strengthen the defences of Esagila (8) that the evil destroyer (9) might not press against Babylon (10) that the front of the battle-line might not draw near to Imgur-Bel the wall of Babylon, (12) that which no king before me had done, I did, (14) in that on the outskirt of Babylon (13) a great wall to the eastward (16) of Babylon I put around about the city. (17) Its moat-wall I dug (18) and attained unto the water-level, (19) and beheld (20) that the moat-wall which my father had fixed was insecure in its construction. (22) And so a great wall, which like a mountain (23) cannot be moved (25) I made (24) of mortar and brick; (26) with the moat-wall which my father fixed (28) I joined it. (29) Its foundation upon the bosom of the abyss (30) I placed down deeply.

Col. 2.—(1) Its top I raised mountain high. (3) I triplicated the city wall, in order to strengthen it, (4) I caused (5) a great protecting wall (6) to run at the foot of the wall of burnt brick, (7) and built it upon the bosom of the Abyss, (8) and placed its base down deeply. (9) The fortifications of Esagila and Babylon I strengthened (11) and made an everlasting name for my kingdom. . . .

NEBUCHADNEZZAR V

Col. 1.—(16) Upon it [the moat-wall] I raised [the wall] mountain high with mortar and brick. (20) Gigantic city gates I fitted into it (22) and their wings of great cedar

beams I covered with copper, and fitted into them. (25) I put hard by it a waterway; (26) of mortar and brick I made its bed.

Col. 2.—(1) In order that no (2) pillaging (3) robber (4) might enter into this water sewer, (5) with bright iron bars (6) I closed the entrance of the river, (7) in gratings of iron (9) I set it and (10) fastened it with hinges. The (11) defences of Esagila, (12) and Babylon, (13) I strengthened (14) and secured for my reign an enduring name.

. . . . .

NEBUCHADNEZZAR VII

Col. 2.—. . . (3) Imgur-Bel and Nimitti-Bel, (4) the great walls of Babylon, I put into good condition, (5) and the walls of its moat with mortar and burnt brick (6) I made mountain high (7) and constructed it about the city to strengthen it, (8) terrible bronze bulls (9) and dreadful serpents ready to strike (10) I placed in its great gates, (11) Babylon I made glorious that men might behold; (12) to protect Esagila and Babylon I took precaution.

(13) At the upper tower of the Gate of Ishtar, (14) from the bank of the Euphrates up to this Gate (16–17) I built a great fortress of mortar and burnt brick (15) to strengthen the side of the city. (18) Its foundation upon the level of the sea, (19) in the depths of the waters of the abyss I placed down deeply. (20) Its top I raised mountain high; (21) watch towers I made strong with great skill, (22) and rendered the city of Babylon as a fortress.

NEBUCHADNEZZAR VIII

Col. 1.—. . . (11) As to Libil-hegalli, the (12) Eastern canal (13) of Babylon (14) which for a long time (15) had been in ruins (17) and had become obstructed (16) with masses of debris (18) and filled with rubbish, (19) its course (20) I sought out, (21) and from the bank of the Euphrates (22) as far as the street Aiburšabum—(*Col.* 2) (3) I built its course (1) with mortar (2) and burnt brick. (5) In Ai-ibur-šabu, (6) the street of Babylon, (7) for the triumphal procession of my great lord Marduk, (9) a bridge over the canal (10) I constructed, (12) and its course I widened.

. . . . .

NEBUCHADNEZZAR IX

Col. 1.— . . . (39) E-temin-anki, *ziggurat* of Babylon, (40) in joyful gladness I built. (41) As to Babylon, the city of the great lord Marduk, Imgur-Bel, its great wall I finished. (44) Upon the thresholds of the great gates mighty bulls of bronze and terrible serpents threatening I placed. (46) Its moat I dug and reached the water-level; (47) therein I built with mortar and burnt brick. (49) Recesses in the great wall, (50) which like a mountain cannot be moved, (51) I made with mortar and burnt brick.

Col. 2.—(1) In order to strengthen the defences of Esagila (2) that the evil and the wicked might not oppress Babylon, (4) that which no king had done before me [I did in that] at the outskirt of Babylon to the east of Babylon I put about a great wall. (7) Its moat I dug (8) and its inner moat-wall with mortar and brick I raised mountain high. (10) About the sides of Babylon great banks of dirt I heaped up. (12) Great floods of destroying waters (13) like the great waves of the sea I made flow about it; (14) with a marsh I surrounded it. (15) To gladden the course of life of the people of Babylon among the cities of Sumer and Akkad (17) I rendered its name eminent. Ezida, the original temple, in Barsippa (19) I rebuilt. . . . *Col.* 3. . . . (18) The numerous peoples which Marduk my lord (19) gave unto my hand (20) I subdued under the sway of Babylon. (21) The produce of the lands, the products of the mountains, (22) the bountiful wealth of the sea within her I gathered. . . . (25) Great quantities of grain (26) beyond measure I stored up in her.

(27) At that time the palace my royal abode . . . (31) I rebuilt in Babylon. (32) Upon the ancient eminence, (33) upon the bosom of the wide world, (34) with mortar and brick I laid its foundation. (36) Great cedars I brought from Lebanon, the beautiful forest to roof it. (38) A great wall of mortar and burnt brick I threw about it. . . .

NEBUCHADNEZZAR XI

. . . . .

Col. 1. . . . (23) Eteminanki, the *ziggurat* of Babylon, (24) I made and completed. (25) With burnt brick and shining jewels (26) I raised its head.

(27) Now at that time E-tur-imin-anki, *ziggurat* of Barsippa, (28) which a former king had made (29) and erected for forty-two cubits, (30) but whose top he did not raise, (31) since ancient days was fallen in ruins, (32) and the channels to carry off its waters were not in working order.

Col. 2.—(1–2) Its ornamentations the rains and storms had torn away; (3) the burnt bricks of its outside covering were destroyed; (4) the brickwork of its chambers was crumbled into debris. (5) To restore it my lord Marduk (6) put it into my heart. (7) Its location I changed not and its base I altered not. (8) In a fortunate month, on a day of good luck, (9) with the bricks of its temple structure and the stones of its outer wall (10) the stages I fixed: (11) its ruin I made to arise: (12) the inscription of my name (13) in the corner of its stages I placed. . . .

. . . . .

NEBUCHADNEZZAR XIII

Col. 1. . . . (54) As to Babylon, the city of my great lord Marduk, (55) the city of his supreme glory, (56) Imgur-Bel and Nimitti-Bel, (57) its great walls, I completed. (58) Upon the thresholds of their great gates (59) I made and placed (60) awful bulls of bronze and terrible serpents ready to strike.

(61) That which no former king had done (63) my father did in that he put about the city (62) moat-walls of mortar and brick as many as two.

(64) As for me the third of their great moat-walls,—(*Col.* 2) (1) one against the other, (2) with mortar and brick I built (3) and with the moat-walls of my father joined and securely united it. (4) Its foundation upon the bosom of the abyss I placed down deeply, (5) and its top I raised mountain high. (6) A moat-wall of burnt brick to the west (7) of the wall of Babylon I placed about the city. (8) The moat-wall of the Arahtu canal, east of the city, (9) from the Ishtar Gate as far as the gate of the god Urash (10) with mortar and brick did my father fix securely. (12) The quays of burnt brick along the farther side of the Euphrates he laid securely, (14) but did not finish all the work. (15) As for me, his firstborn son, the beloved of his heart, (16) the moat-wall of Arahtu (17) I built with mortar and burnt brick,

(18) and joined it with that of my father, making it very solid.

(19) For the protection of Esagila and Babylon (20) that sandbanks might not collect, in the river Euphrates (21) a great dike in the river (22) of mortar and brick I caused to be made. (23) Its foundation I laid upon the abyss, (24) its top I raised as high as a mountain, [25–40 contain an account of the building of the eastern moat and wall at some distance from the city; the building of Tabi-šupuršu the wall of Barsippa, and of the temple to Mar-biti-bêli in Barsippa. The paragraph is identical with Neb. IV., 2, 12–27].

. . . . .

NEBUCHADNEZZAR XV

. . . . .

Col. 4.—(66) As to Imgur-Bel (67) and Nimitti-Bel, (68) the great walls of Babylon (70) which Nabopolassar king of Babylon, my father (72) had made but did not finish (73) the work,—(*Col.* 5) (1) the moats he dug (2) and the two huge moat-walls (3–4) he had fixed in them with mortar and brick. (5) He had made the moat-walls of Arahtu (7) and walls of brick (8) along the farther side of the Euphrates he had built in, (10) but the rest he had not finished.

(12) From Du-Azag, (13) place of fates, (14) chamber of destinies (15) to Aiburšabu, (16) a street of Babylon, (17) over against the Shining Gate, (18) with brick and breccia stone (19) for the procession of Marduk (20) he made a walk. (21) I his first-born son, (22) beloved of his heart, (26) completed (23) Imgur-Bel (24) and Nimitti-Bel, (25) great walls of Babylon. (27) Beside their moat-walls (28) two huge moat-walls I built of mortar and burnt brick; (30) with the moat-wall which my father had fixed (31) I joined it, (32–33) and thus surrounded the city for protection. A wall of burnt brick, (35) on the west side, (37) I put around about (36) the wall of Babylon. (38) Aibur-šabu, (39) a street of Babylon, (40) for the procession of my great lord Marduk, (42) I filled up (41) with a high filling, (43) and with bricks and breccia stone, (44) and with stones from the mountain I made (45) Aibur-šabu, (46) from the Shining Gate (47) to Ishtarsakipat-tebisa, a road suitable,

(49) for the procession of his divinity (50) I made acceptable, (51) and with what my father made (52) I joined it (53) and beautified the road Ishtarsakipat-tebisa.

(57–59) The great gates of both Imgur-Bel and Nimitti-Bel, (62) were too low (60) because of the grading (61) of the street of Babylon. (63) At their entrances I tore down those gates.

Col. 6.—(1) and upon the water-level (2) I laid their foundation (3) in mortar and burnt brick. (4–7) With burnt brick and brilliant blue glaze tiles on which bulls and serpents were engraved I made them skilfully. (8) Great cedars (9) for their covering (10) I framed. (11) The wings of the gates of cedar (12) I overlaid with bronze, (13) sills and hinges, (14) of bronze work I fitted into its gates. (16) Great bronze bulls (17) and serpents threatening (18) I placed at their thresholds. (19) Those great gates (21) I ornamented very richly to the astonishment of all men.

(22) That Imgur-Bel, the wall of Babylon, might not be within spear's throw of the battle-line, (24) that which no former king had done [I did] (29) [in that] I threw about Babylon (28) a huge wall to the eastward (25) 4000 cubits along the city, (27) far off, unapproachable. (30) Its moat I dug and its sides (32) I fixed with mortar and burnt brick. (33) A huge wall at its edge (34) I built mountain high. (35) Its wide gates (36) I built in. (37) Wings of cedar, coated with brass, (38) I fitted into them.

(39) That an enemy with evil intention (40) might not press on the sides of Babylon, (41) with much water (42) like the floods of the sea (43) I surrounded the land. (44) That their salt waves (48) might not make (47) a break in them, (45) as the surges of the bellowing sea, (46) the bitter stream, (49) a dam of earth (50) I heaped up for them, (51) and a moat-wall of stone (52) I placed around them. (53) The defences carefully I strengthened. (55) The city Babylon (56) I rendered into a defenced city. (57) Tabišupuršu, (58) the wall of Barsippa, I rebuilt, (60) I dug its moat, (62) and fixed its banks with mortar and burnt brick. . . .

Col. 8. . . . (31) Since fear of Marduk my lord (32) was in my heart, (33) in Babylon (34) his treasured city (37) I changed not its street in order to enlarge (36) my royal abode. (38) His sanctuary I did not demolish, (39) his

canal I did not dam up. (40–41) As to the abode I took great consideration.

(42) In order that the throes of battle (43) against Imgur-Bel, (44) the wall of Babylon, might not draw nigh, (43) for 490 cubits of ground (46) along Nimitti-Bel, (47) the outer wall of Babylon, (50) [I made] with mortar and burnt brick to secure it (49) two huge moat-walls, (51) a fortress high as a mountain I made. (52) Between them (53) a construction of burnt brickwork I constructed. (54) Upon the top of it I built a great abode (55) for my royal dwelling-place (56) with mortar and burnt brick (57) I made it high. (58) To the palace of my father I joined it. (59) In a favourable *month*, upon a lucky day, (61) I placed (66) its foundation upon the breast of the abyss. (62) Its top I raised like a rocky cliff. (64) In 15 days its work—(*Col.* 9) (1) I completed. . . . (17) A frieze of blue glazed stone around its top (18) I caused to be laid. (19) A great wall of mortar and burnt brick (21) as a mountain I threw about it, (22) and beside the brick wall a huge wall (24) of immense stones, (25) the booty of the mountains (26) I made (27) and like a mountain (28) I raised its top. . . . (40) That the throes of battle (38) of the evil man with dark intentions (39) should not threaten the wall of Babylon. (42–44) Babylon I made strong as a cliff. . . .

NEBUCHADNEZZAR XVII

Col. 1. . . . (44) E-temin-anki, tower of Babylon, (45) whose location Nabopolassar, (46) king of Babylon, my father, . . . (49) had cleared (51) and whose foundation he had established (50) on the bosom of the nether world . . . (*Col.* 2) (5) and whose walls thirty cubits he had raised (6) but did not put on the top. (8) To raise the top of E-temin-anki towards heaven (10) and to strengthen it (11) I set my hand. . . . (12) All peoples of scattered habitations (13) whom Marduk bestowed upon me (34) I engaged to do service (36) for the building of E-temin-anki. . . . *Col.* 3. (26) As . . . .

NEBUCHADNEZZAR XIX

A. *Col.* 1.—(1) Nebuchadnezzar, (2) king of Babylon, etc., etc., am I. . . . A. *Col.* 3. (35) As to Esagila, the vast

habitation, (36) palace of heaven and earth, temple of the lord of the gods his adorers, (38) E-umuša, sanctuary (39) of the lord of the gods, Marduk, (40) in radiant gold I clothed (41) the temple for Marduk my lord (42) I made brilliant as the sunlight (43) I adorned Ka-hilisug, (44) with gold-bronze ornamentation. (47) As to Ezida of Esagila, (48) shrine of Nebo, of that chamber (49) to which, at the *Zagmuk*, at the commencement of the year, (50) for the Akitu feast, (51) Nebo, the heroic son (52) approaches from Barsippa (53) and wherein he takes his seat, (54) its threshold and its bars, (55) its doorposts, its cornices and its posts (56) with radiant gold I clothed, (57) and the temple for Nebo, beloved patron of my kingdom (58) I made to shine in splendour.

(59) As to E-temin-anki, the *ziggurat* of Babylon, of which (60) Nabopolassar, king of Babylon, (61) my father, my begetter, had fixed the foundation,—(A. *Col.* 4) and had raised it 30 cubits (2) but had not erected its top (3) I set my hand to build it. Great cedars (5) which were on Mount Lebabon (6) in its forest, (7) with my clean hands, (8) I cut down, (9) and placed them for its roof. (10) The gate of Ea, the gate of Lamassu, the gate of Plenty, the gate of Vision, its huge gates (13) about Etemin-anki (14) as the day I made brilliant (15) I fitted them in, (16) huge cedar beams (17) for their roof (18) I fitted into place. . . .

(23) The monthly offerings of Marduk (24) and Zarpanit (25) the gods, my lords (27) I was anxious to render (26) greater than before. (28) For each day two stall-fed bulls, (29) fat and perfect, (30) one ox (31) of perfect shape, (32) whose bodies are healthy, (33) forty-four lambs, (34) good *zuluhu*, (35) as is fitting for the gods of Babylon, (36) four cocks of the kind *little Uz*, ten pigeons, thirty marratu, (37) four birds of the kind *little Nunuz*, three herbs of the kind *summu*, (38) an *isih* of freshwater fish, (39) the best of the marsh-lands, (40) vegetables in abundance, (41) the luxuriance of the gardens, (42) golden fruit, (43) fruits of autumn in great quantity, (44) dates, Tilmun figs, white figs, (45) pure honey, mild ale, (46) butter and cream, (47) milk pure, oil (48) . . . gold-brown grain, (49) roasted spelt, red wine, (50) from the mountains Izallu, Tuimmu, (51) Siminu, Hilbunu, (52) Arbanu, Suhu, (53) Bit-Kubati, Akšak, (54) and Bitâtu. (55) The table of Marduk (56) and Zarpanit, my lords, (57) I rendered more abundant than

before. . . . A. *Col.* 5. . . . (19) As to the bark the Umuš-*a* transport (20) its posts fore and aft, (21) its tackle, its bows, (22) its sides, (23) with brass lions and glaring serpent-headed beasts (24) I arrayed. (25) With jewels I adorned it (26) and upon the stream of the clear Euphrates (27) like the bright stars (28) I made radiant its splendour (29) and for all men to behold, (30) I fitted it out with riches. (31) At the *Zagmuk* on New Year's day, (32) Marduk, lord of the gods, (33) into it I caused to ascend (34) and to the magnificent feast, his grand celebration, (36) I caused him to go in procession. (37) In the shining Umuš-bark I caused Marduk to go (38) in pomp, he passed along the wall of the Araḫtu canal. . . .

Col. 6. . . . (4) Ezida the original temple, (5) loved by the divine Nebo, (6) [for] Nebo [the mighty one], (7) who lengthens the days of my life, (8) in Barsippa I rebuilt. (9) For its (10) ornamentation I used (9) great cedar beams. (11) Beams of durable oak and thick cedar beams (13) with shining gold I clothed (14) and the temple which was fallen to ruin (15) I built upon its foundation. (16) Huge cedars (17) from Mount Lebanon, their forest, (18) with my clean hands I cut down. (19) With radiant gold I overlaid them, (20) with jewels I adorned them. (21) For the roof of Emaḫtila, (22) the shrine of Nebo (23) I fitted them by threes. (24) As to the six side chapels *talbanati* (25) of the shrine of Nebo, (26) the cedar beams of their roofs (27) I adorned with lustrous silver. (28) Giant bulls (29) I made of bronze work (30) and clothed them with white marble. (34) I adorned them with jewels (32) and placed them upon the threshold of the gate of the shrine.

(33) Threshold, bars, door-posts, cornices, (34) wings of the doors of the gate of the shrine, (35) I clothed with dazzling gold. (36) With tiles of bright silver the aisles of the shrine (38) and the path to the temple I constructed. (39) Doors of oak and cedar (40) I overlaid with a covering of shining silver (41) and within all the gates (42) I fastened them. (43) The shrine and the chapels, the thresholds of the temple (44) I ornamented with work of shining silver. (45) The cedar roofing of the shrines (46) I overlaid with silver. . . .

(47) For the departure and entering in of the honoured child Nebo. . . .? (49) when he visits the inner city Šuanna

(50) I made it shine as the day; that no former king had done (52) for Nebo my lord I did with pomp.

(53) Nebo and Nana my lords, (54) with joy and gladness (55) in the abode that satisfies the heart (56) I caused to dwell.

A. *Col.* 7. . . . (21) On the boat of the *Gan-ul* Canal (22) his radiant bark (23) I turned my eyes (24) and I caused it to be constructed. (25) The cabins of oak (26) and the two high masts of cedar (27) I covered with gold (28) and shining ornamentation. (29) At the time of the *Zagmuk*, on New Year's Day, (30) for the Akitu feast in honour of (31) Marduk, divine lord of the gods, (32) Nebo his strong and faithful son, (33) comes in procession from Barsippa (34) to Babylon. (35) In the bark of the *Gan-ul* Canal which is adorned with riches (36) and laden with luxuries (37) I placed tents of brocade and a brilliant baldachin (38) on either side (39) for his pompous journey (40) I put in a spectacle for all men.

(41) What no former king had done (42) for Nebo my lord I did magnificently. (43) *From* Ishtar-sakipat-tebisa (44) *to the* SHINING GATE, Ishtar-lamassi-ummāni-šu (45) *the wide street,* the way of the procession, (46) *processional street of the great lord Marduk,* (47) from Ikkipšunakar (48) to the entrance gate of Nebo into Esagila, Nabu-daian-nišešu (49) the wide street, the processional way (50) of the royal son, Nebo, (51) I graded up with a high grading (52) and with mortar and tile (53) I made the road smooth. (54) As to Libil-hegalli, (55) the canal east of Babylon (56) which since distant days was fallen in ruins, (57) its location I sought after (58) and with mortar and tile (59) I built its course. (60) In Aiburšabu, (61) the street of Babylon, (62) for the procession of the great lord, Marduk, (63) I installed a bridge across the canal. (64) Oak, (65) cedar—(A. *Col.* 8) (1) ašuḫu-cedar and . . . wood . . . (2) with brass [I covered and] (3) thrice [I laid them one upon the other], (one above the other); (5) with mortar and burnt brick (6) I made good the way.

B. *Col.* 5. . . . (4) For Babylon, city of the great lord Marduk, (5) city of his grandeur, (6) Imgur-Bel and Nimitti-Bel (7) its great walls I completed. (8) What no former king had done [I did in that I] (9) placed upon the thresholds of its gates (10) monster bulls of bronze (11) and dreadful serpent-headed beasts. (12) Two walls for its moat (13) with mortar and brick (14) had my father caused

to be built about the city. (15–17) And I built a third huge moat-wall, one alongside the other, of mortar and brick. (18) With the moat-wall of my father I united it. (19) Its foundation upon the bosom (20) of the nether world I established. (21) Its top mountain high I erected. (22) A moat-wall of brick to the west of the (23) fortification of Babylon . . . I put around.

B. *Col.* 6. . . . (9) To Gula, majestic princess, (10) dweller in Esabe, who keeps my body healthy, (11) protectress of my soul (12) a baldachin of oak, a durable wood, (13) I clothed with radiant gold (14) and adorned it with precious stones (15) and placed it over her (?).

(16) An elegant table, a masterpiece for her food, (17) with shining gold I clothed, (18) with precious stones I adorned (19) and placed it before her. (20) Two dogs of gold, two dogs of silver, two dogs of bronze (22) with strong limbs, (22) weighty of body, (23) within her grand gates (24) I caused to be sunk in the ground.

(25) Tabišupuršu, the wall of Barsippa, (26) I rebuilt. A wall for its moat (27) with mortar and brick (28) I caused to be put about the city to strengthen it. (29) To Mar-biti, my lord, (30) who shatters the arms of my foes, (31) his temple in Barsippa I rebuilt. (32) To Gula, mistress of my life, (33) protectress of my being, dweller in Etilla, (34) Etilla, her temple in Barsippa I rebuilt. (35) To Gula, majestic and grand, (36) who enlarges the renown of my reign, (37) dweller in Egula, (38) Egula her temple in Barsippa I rebuilt. (39) To Gula, majestic lady, (40) who enlivens my spirit, (41) dweller of Ezibatilla, (42) Ezibatilla, her temple in Barsippa I rebuilt.

(46) To strengthen the defences of Babylon, (47) that which no former king had done [I did in that] (48) alongside of Babylon for four thousand cubits (49) of ground, far away, not near, (50) from the bank of the Euphrates above (51) to the bank of the Euphrates below the town, (49) a huge wall to the east of Babylon I put about [the city]. (53) Its moat I dug and within (54) I fixed it with mortar and brick. (55) A huge wall of mortar and brick (56) upon its bank I built like a mountain. (57) Its gigantic gates I fastened in it (58) and its doors of cedar I covered with brass, (59) and fitted them in. (60) In the suburbs of Babylon, (61) from the causeway on the bank of the Euphrates (62) to the middle

of Kish, 4⅔ Kaskal-Gid of ground, (63) I heaped up an embankment of earth and surrounded the city with huge floods. (65) That their overflow might not make holes in it (66) I secured it within with mortar and brick. (67) To strengthen Babylon (68) above Opis to the middle of Sippar, (69) from the bank of the Tigris to the bank of the Euphrates (70) 5 bêru, a huge embankment of earth (71) I heaped up and many waters, as the flood of the sea I put about the city at a distance of (73) 20 bêru.

(74) In order that by the inundation of the many waters, (75) this embankment of earth might not be damaged, (76) with mortar and brick I fixed it within . . . (77) [to (78) make happy the course of life] (79) [of the peoples of Babylon]. . . .

B. *Col.* 7. . . . (59) The moat-wall of Cutha (60) I have built with mortar and brick, (61) and to strengthen the city I have caused it to encircle it. . . .

Col. 9. . . . (35) I have opened an entrance, (37) a route for the beams I have smoothed. (38) Before the king Marduk (39) enormous beams of cedar, large and heavy, (40) the quality of which is precious, (41) the dark form of which is excellent, (42) the abundance of Lebanon (43) like floods of timber (44) I have transported by the canal Arahtu.

NEBUCHADNEZZAR XX

Col. 1.—(34) ETEMINANKI, the ziggurat of Babylon (35) I rebuilt. (36) EZIDA, the original temple, the favourite temple of Nebo in Borsippa I rebuilt, (38) with gold and jewels like the stars in the heavens I made it to shine. (40) Great beams of cedar I coated with gold (41) to protect Emahtila, the chapel of Nebo. (42) In threes I stretched them out. (54) What before me no king had done [I did]: (55) 4000 cubits of land to the side of the city, (56) far off, unapproachable, (57) the great wall towards the east (58) I carried round Babylon. (59) I dug its moat and reached down to water-level, (60) a moat-wall I built with mortar and bricks (61) and joined it to the wall my father had raised up. (62) A mighty wall of mortar and bricks (63) I built at its edge mountain high. (64) For the defence of Esagila and Babylon. (65) In order that sandbanks might not collect in the Euphrates (66) I caused a great dam in the

river, (67) of mortar and bricks to be set up. (68) Its foundations I laid in the depths of the waters, (69) its head I carried up as high as a mountain top.

Col. 2.—[Repetition of former passage.] (3) Imgur-Bel and Nimitti-Bel, (4) its [Babylon's] great walls I completed. (5) At the threshold of their gates (6) I made huge bulls of bronze and dread-inspiring serpents, and set them up. (8) What no former king had done [I did] (9) with moat-walls of mortar and brick, (10) two of them, my father had encompassed the city. (11) But I [built] a great moat-wall, the third, (12) alongside the others, (13) with mortar and bricks, (14) and joined it to the moat-wall of my father. (15) Its base I laid on the breast of the under-world, (16) its head I carried mountain high. (17) With a moat-wall of bricks towards the west (18) I encompassed the ramparts of Babylon.

(19) The embankment of the Arahtu Canal towards the east (20) from the Ishtar Gate to the Gate of Urash (21) of mortar and bricks (22) my father [had built], (23) an embankment wall of burnt bricks on the farther side of the Euphrates (24) had built, (25) but had not completed it. (26) But I, his first-born, his well-beloved, (27) built the embankment of Arahtu, (28) of mortar and bricks (29) and with the embankment of my father I strengthened it. (30) Tabiš-upuršu, the wall of Borsippa, (31) I rebuilt; (32) with its moat-wall of mortar and bricks (33) I encompassed the city for its defence. (34) Marbîti, the Lord who breaks the weapons of my enemies, (35) I rebuilt his temple in Borsippa. (47) To strengthen the defences of Emeslam, (48) the enclosing wall of Emeslam [I rebuilt] as of old, (49) and its buildings that formerly occupied the court of the temple. (51) The moat-wall of Cutha (52) of mortar and bricks (53) for the defence of the city I built round it.

NEBUCHADNEZZAR XXI

Col. 1.—(18) Nimitti-Bel . . . (19) Nabopolassar, King of Babylon my father . . . (20) laid not its foundations strongly; (21) its moat-wall (22) towards the west, from the Ishtar Gate to the Urash Gate (23) my father built of mortar and brick, (24) and erected an embankment of brick on the other side of the Euphrates, (25) but did not complete the

rest. (26) What from all ages no king had done, (28) that did I, (29–31) I surrounded Babylon from . . . to the banks of the Euphrates below the city [with a mighty moat-wall] (32) of mortar and bricks I made its embankments. (33) I, the first-born son, the beloved of his heart . . . (36) completed it.

Col. 2.—(2) I built a mighty moat-wall of mortar and bricks, and (3) joined it to the moat-wall my father had built; (4) its foundations I laid on the breast of the under-world, (5) its head I carried high as the mountains. (6) A moat-wall of brick, towards the west I caused to encircle the outer wall of Babylon; (7) alongside the moat wall of the Arahtu which my father had built, (8) I built a great moat-wall of mortar and brick, high as the hills (9) along the wall . . . (10) for the defence of the city, (11) that my father had built (12) but which he had not completed, I carried its head, (15) I dug its moat down to the water-level. (16) 43 (?) cubits I built the great moat-wall, (17) with the moat-wall my father had built I joined and strengthened it. (18) A great wall of mortar and brick [I built], (19) set mighty gateways in it, (20) and set in its gates wings of cedar coated with bronze.

At that time I bethought me of strengthening the defences of Babylon. (22) 360 cubits of land towards Nimitti-Bel, (23) the defence wall of Babylon, (24) from the bank of the Euphrates to the left (?) threshold of the Ishtar Gate (25) I built two mighty walls of brick and mortar, (26) a fortress high as the hills. (27) Between them I built an erection of bricks; (28) at the top of it I built a great fortress, (29) a dwelling for my Royal Majesty (30) of brick and mortar rising to a great height. (31) To the Palace within the city I joined it, (32) and fashioned it into a splendid Royal Palace for myself. (33) Further, from the right side of the Ishtar Gate down to the lower bastion (?) of Nimitti-Bel in the east (35) 360 cubits frontage from Nimitti-Bel [reckoned] as a defence [I built] (36) a great fortress wall of mortar and bricks, high as the hills. (37) The defences I strengthened with great skill, (38) made the city of Babylon into a fortress.

NEBUCHADNEZZAR XXII

(1) Nebuchadnezzar, etc. . . . (2) son of Nabopolassar am I, (3) I built the Ishtar Gate of blue glaze tiles (4) for

Marduk, my Lord. (5) Massive bronze monsters and dread-inspiring serpents (6) I set up at its threshold, (7) blocks of limestone, (8) of stone, with a frieze of [reliefs] of bulls and [dreadful serpents ?].

NEBUCHADNEZZAR XXVI

Col. 1.—(1) From the "Shining Gate" to Ishtarsakipat-tebisa as a processional way for his Godhead, (2) suitable, to the piece my father had built I joined [it], and beautified the way (3) Ishtarsâkipât-tebîša. Of Imgur-Bel and Nimitti-Bel, (4) of both their gates, owing to the rise in the street of Babylon (5) the entrances had become too low. . . . (6) These two gates I tore down; at water-level I laid their foundations (7) of mortar and bricks and with shining blue glaze tiles (8) with pictures of bulls and awful dragons I adorned the interior; (9) mighty cedars to roof them over I caused to be stretched out, the wings of the gates of cedar wood coated with bronze, (10) the lintels and the door knobs of brass I fastened into the openings of the gates; (11) massive bulls of bronze and dreadful, awe-inspiring serpents (12) I set up at their thresholds, the two gates (13) I ornamented with great splendour to the amazement of all men. (14) In order that the onslaught of battle might not draw nigh to Imgur-Bel, the wall of Babylon.

NEBUCHADNEZZAR XXVIII

(1) Nebuchadnezzar, etc. . . . (2) son of Nabopolassar, King of Babylon, am I. In order to strengthen the fortifications of Esagila (3) that the onslaught of battle may not approach Imgur-Bel I built a mighty wall within the precincts of Babylon. (4) Then I discovered that the moat-wall my father had built was too weak and raised a mighty wall of bricks and mortar (5) and joined it to the moat-wall my father had built, and raised it high as a mountain cliff. (6) The [main] body of this wall in order to strengthen it I built in triplicate, and raised a great buttress wall (7) of mortar and bricks at the base of the wall.

NEBUCHADNEZZAR XLVI

Col. 1. . . . (1) the shining dwelling, the residence of my Royal Majesty (2) in Irṣit-Babili, (3) in the midst of

Babylon, I built. (4) What no King of all the Kings had built [I did]. (5) Its foundation I laid on the breast of the under-world, by the water, (6) strongly, (7) with mortar and bricks (8) I carried it high as the mountain tops. (9) From the upper sea (10) to the lower sea (11) all of the lands which Marduk (12) [had bestowed on me, of all the lands, etc. . . . I made Babylon the capital].

NERIGLISSAR I

Col. 1.—(1) Neriglissar, King of Babylon, (2) the restorer of Esagila and Ezida . . . (14) the son of Belšumiškun, King of Babylon, am I. (18) Esagila and Ezida I restored, the Holy Places I rebuilt, (21) the bronze serpents such as had stood always in the gateways of Esagila, (22) beside the silver *tirimu* on the threshold (23) at the East Gate, at the Gate of the Great Dragon, at the Gate of Plenty and the Gate of Bright Omens, (24) no former king had erected. (25) I . . . (26) made seven dreadful serpents of brass (27) that spit forth the venom of death on the wicked and the enemy. (28) With a coat of shining silver I overlaid them. (29) In the East Gate . . . in the sides of these Gates, as in ancient times, (31) beside the silver tirimu on the thresholds, as became their (*sic*) former splendour I set them up on pedestals. (33) The Chamber of Destiny in Ezida (34) to which on the Zagmuk, the beginning of the year, (35) at the New Year's festival . . . Marduk (36) approaches from Barsippa to Babylon . . . (38) to take up his abode, (39) whose dwelling a former king had built of gold, (40) with shining red gold I overlaid it. (41) The Sippar river which in old days ran past Esagila—(*Col.* 2) (1) whose waters under the reign of a former king for cleansing purposes (2) had withdrawn too far away, too far for fetching water from, (3) I sought for its old bed, (4) its floods as in olden days (5) I led past Esagila. (6) The canal on the eastern side [of the Euphrates] which a former king had caused to be dug, (7) but whose channel he had not built, (8) the canal I caused to be built, of mortar and bricks I made its bed. (10) Waters that would never dry up in abundance I procured for the land. (12) For Esagila and Ezida I was ever at work; (13) for the preservation of all the cities of the coast (14) I was ever concerned.

(15) At this time the Palace, the residence of my Royal Majesty (16) in Irṣit-Babili, in the midst of Babylon, (17) from the Ai-iburšabum, the processional way of Babylon, (18) to the banks of the Euphrates (19) which a former king had built and the threshold of which he had securely laid (20) for the strengthening of the palace (21) above the banks of the Euphrates (22) had fallen in, its fittings had burst asunder. (23) Its fallen-in walls I tore down (24) and reached the water-level. (25) At the water-level I laid with mortar and burnt brick (26) its foundations firmly. (27) I built and completed it. (28) I carried up its head to a great height. (29) Mighty cedars I caused to be stretched out to roof it in, (30) the upper sills and the roof joints [beams].

APPENDIX 3

CLAY CYLINDER OF CYRUS THE GREAT

Translated from *Die Keilinschriften der Achameniden*, of WEISSBACH, by E. M. LAMOND.

(9) At their lamentation the Lord of the Gods (note presumably Merodach) raged exceedingly and [left] their territory; the Gods dwelling within it left their shrines (10) because of anger that I had caused [my troops] to enter Babylon. Marduk may return . . . to the totality of habitations whose dwellings were laid waste, (11) to the people of Sumer and Akkad who resembled corpses . . . he turned, and had pity upon them. He gathered together the inhabitants of all the lands, looked out for them, (12) nay he sought for a righteous ruler, according to his own heart in order to grasp his hand. Cyrus, King of Ansan, his name he spoke, called him to the sovereignty over all. (13) The lands of Kuti, the whole of Umman-Manda, he brought under his feet. The black-headed men, whom his hands won, (14) in right and justice he befriended them. Merodach, the great Lord, the Guardian of mankind, looked with joy at his pious acts and his just heart, (15) he ordered him to betake himself to his city of Babylon, made him take the way to Babylon, going as a friend by his side. (16) His far-spread troops, whose number like the waters of the sea is unknown, went armed by his side, (17) without a struggle or combat allowed him to enter Babylon, his city. Babylon he preserved from affliction. Nabu-na'id, the King, who did not worship him [Merodach] he delivered into his [Cyrus'] hands. (18) The whole of the people of Babylon, the whole of Sumer and Akkad, the great men and the Governors of cities bowed under him, kissed his feet, were delighted with his sovereignty, their faces glowed. (19) The Lord who by his power brings

the dead to life, who had preserved all from destruction and mishap, they gladly praised and preserved his name, [the memory of]

(20) I am Cyrus, King of the World, the great King, the Powerful King; the King of Babylon, King of Sumer and Akkad, King of the Four Regions of the Earth; (21) son of Cambyses, the great King, King of the City of Ansan, grandson of Cyrus, the great King, King of the City of Ansan, great-grandson of Teïspes, the great King of the City of Ansan; (22) the ancient, Royal race, whose dynasty Bel and Nabu love, whose sovereignty their hearts long for. When I had entered Babylon in peace, (23) with joy and gladness set up the dwelling of the ruler in the palace of the princes, Merodach, the great Lord, inclined the heart of the inhabitants of Babylon towards me, while I was daily concerned with his worship. (24) My wide-spread troops entered peacefully into Babylon, [in] the whole of Sumer and Akkad no enemy did I allow to arise. (25) I busied myself with the interior of Babylon and all its places of worship. The inhabitants of Babylon and . . . [I freed from the] yoke which did not become them; (26) the ruin of their dwellings I repaired, dug them out where they had fallen in.

At my pious acts Merodach rejoiced, the great Lord, and (27) to Cyrus, the King who honors him, to Cambyses, my own son, and to all my troops (28) he showed himself gracious, and we gladly sung praises to him and his divine godhead. All Kings dwelling in royal residences (29) in all parts of the world, from the Upper Sea to the Lower Sea, those who dwell in . . . the Kings of the West who dwell in tents, all of them (30) brought their heavy tribute, kissed my feet in Babylon. From . . . to the city of Assur and Susa, (31) Agade, Ešnunak, Zumban, Me-Turnu, Deri as well as the district of Gutium, all the cities [on the farther bank of the] Tigris whose colonies were founded in olden days, (32) the Gods who dwelt in them I brought back to their places, and caused them to set up an eternal dwelling-place. The whole of their people I united and re-built their dwelling-places once more. (33) And the Gods of Sumer and Akkad whom Nabu-na'id to the wrath of the lord of the gods had introduced into Babylon, I, at the command of Merodach, the great lord, caused (34) to re-enter their sanctuaries unmolested, a

place to delight the heart. All the gods whom I have brought into their seats, (35) may [they] daily bespeak length of days for me from Bel and Nabu, make intercession for me, and say to Merodach, my lord, of Cyrus, the King, who worships you and of Cambyses his son, may they . . . all of them I granted quiet dwelling (37) . . . geese and turtle doves (38) . . . his . . . to strengthen . . . I was concerned and (39) . . . their . . . (40) and its building . . . (41) of their . . . Babylon (42) . . . (43) hand (44) . . . (45) eternally . . .

Brick Inscription: Cyrus, the builder of Esagila and Ezida, the son of Cambyses, the mighty King [am] I.

APPENDIX 4

BEITRÆGE ZUR ASSYRIOLOGIE

Edited by Fr. DELITZSCH and PAUL HAUPT, pp. 215–225, VOL. II.

HAGEN.—CYRUS INSCRIPTIONS

G. NABUNA'ID CHRONICLE

Col. 1.—[Commencement of the reign (1)]. His chief councillor (?), his . . . he seized. The king (2) . . . of their country they [or he] brought to Babylon . . . (3).

(4) (1st year) . . . and he met with no success [or: did not take away] (5) . . . (6) their family, the whole of it, he spared (7). The king raised his army and at. . . (8–9*a*).

(2nd year) . . . [in the] month Tebet he enjoyed peace in the land Hamat. . . . (9*b*, 9*c*).

(3rd year) (10*a*) . . . [in the] month Ab Ammananu, a mountain (10*b*) sippati-trees, young greenery (?) of every kind their (11, 12) . . . šibbu to Babylon [they brought] . . . remained alive (13). In the month Kislev the king [assembled] his army and (14, 15) Nabû . . . usur . . . the sea of the Western land . . . they (16) set up [their camp] and many warriors the gate of the (17) city of Šindin, army slew (?) him. Did they march (18, 19) away (?) . . . warriors. [Nineteen lines are missing here] (20, 21).

(4th (?), 5th, 6th year). *Col.* 2. [His army] he assembled and marched against Cyrus, king of Ansan him to conquer (1), but against Ištumegu his army rose in revolt, and taken (2) captive delivered up to Cyrus [him]. Cyrus [went] to Agamtânu, the royal city. Silver, gold, treasure, possessions (3) [of all kinds (?)] of the land of Agamtânu they (4) plundered and he took to Anšan. The treasure, the possessions. . . .

(7th year.) The king of Temâ. The son of the (5) king, his lords and warriors in Akkad. [The King] came (6) not to Babylon, Nabû came not to Babylon, Bêl was not carried

forth [the Akitu feast was not kept]; sacrifices (7) received in Esakkil and Ezida the gods of Babylon and Barsippa [as is right]; the guardian of the temple (?) offered drink offerings and preserved the house (8).

(8th year–9th year.) The King Nabûna'id of Temâ. The son of the King, the lords and the army in Akkad (10). The King came not at Nîsân to Babylon. Nabû came not (11) to Babylon, Bêl was not carried forth, the Akîtu feast was not held; sacrifices in Esakkil and Ezida the gods of (12) [Babylon] and Barsippa received, as is right. On the 5th (13) Nîsân died the mother of the King in Dûr-karâšu on the banks of the Euphrates above Sippar: the son of the (14) King and his warriors mourned three days, a lamentation was made. In the month Sîvân at Akkad for the mother of the King a lamentation was made. In the month Nîsân (15) Cyrus the King of Persia called his army together and crossed (?) below Arbela the Tigris. In the month Ijjâr to the land . . . [he set forth]; its king he (16) slew, his possessions he took away, his own garrison (?) (17) he posted therein. . . . After this his garrison (?) remained there as also the King.

(10th year.) The King of Temâ (18, 19). The son of the King, his lords and his army in Akkad. The King [came] for the [Nîsân not to Babylon], Nabû came not to Babylon, Bel was not carried forth, the Akîtu feast was not kept; offerings in [Esakkil and (20) Ezida] the gods of Babylon and Barsippa received, as is (21) right. On the 21 Sivân . . . of the Elamite (?) in Akkad . . . the (22) governor of Uruk. . . .

(11th year.) The King of Temâ. The son of the King, his lords and his army at Akkad. [The (23) King came not at the Nîsân to Babylon], [Nabû came not (?) to Babylon], Bêl was not carried forth, the Akîtu feast (24) was not kept; sacrifices received [at Esakkil and Ezida the gods of] Babylon and [Barsippa, as is right] . . . (25). [About eighteen lines are missing here. About sixteen lines are missing.]

Col. 3 (12th–16th year.) (Tigris) (1). The month Adar Ishtar of Uruk (2) . . . the gods of the land. . . . (3).

(17th year.) . . . Nabû to go forth from Barsippa (4, 5). The King went into the temple of E-tur-kalama. In the (6, 7) month . . . and of the lower (?) sea's rebellion (?) [Nabû came to Babylon (?)] Bêl was borne in procession (8), the Akîtu feast, as is right, was held. In the month . . .

[Šarturda] [and the] deities of Marad, Zamama and the (9) deities of Kish, Bêlit and the deities of Harsag-kalama were removed to Babylon. Up to the end of Elûl the gods (10) of the land of Akkad, both of that above and that below (11) the direction of the wind (?), were carried into Babylon. The gods of Barsippa, Kûtû and Sippar were not brought in. In the month Tammuz, when Cyrus at Upê on the (12) bank of the Tigris did battle with the army of Akkad (13) he conquered the inhabitants of Akkad; whenever he assembled he slew the people. On the 14th Sippar was taken (14) without a battle. Nabû-na'id fled. On the 16th Ugbaru (15), the governor of Gutium and the warriors of Cyrus without a struggle entered into Babylon. Owing to delay Nabû-na'id (16) was taken prisoner in Babylon. Until the end of the month the shields of Gutium encircled the gates of Esakkil; no man's spear penetrated into Esakkil or into the sanctuaries (17), nor was any festival passed over. On the 3rd of (18) Marchesvan made Cyrus his entry into Babylon. *Harine* were spread before him. Immunity was granted the (19) city, Cyrus proclaimed to the whole of Babylon peace. Gubaru, his vice-regent, placed governors in Babylon and (20) from Kislev to Adar the gods of Akkad, whom Nabû-na'id had (21) brought down to Babylon to their cities returned. In the (22) night of the 11th Marchesvan Gubaru fell upon it (?) and slew the son (?) of the King. From the 27th Adar to the (23) 3rd Nîsân lamentation [was made] in Akkad, all the people bowed their heads. On the fourth day when Kambuzi'a, the (24) son of Cyrus went into the temple Ê-šapa-kalama-sumu (25) came (?) messengers (?) of the god Nabû, whom [he venerated (?)] (26) . . . brought in their hands a message (?) and when he the hands of Nabû [grasped] . . . lances and (27) bows . . . the inhabitants (?) of Uruk . . . Nabû turned to Esakkil; lambs in sacrifice to Bêl . . . (1) [here twenty-nine lines are missing of *Col.* 4] . . . Babylonians . . . (2)

the gate was destroyed . . . to Ê-anna from (3–5) . . . Bit-mummu he went forth (6–8). [About one line of broad space without writing.]

. . . . in Babylon. . . .

. . . . Babylon he shut up and (?) . . . [unwritten space to the margin of the tablet].

APPENDIX 5

THE HISTORY OF HERODOTUS

By GEORGE RAWLINSON, M.A.

BOOK I., *Chap.* 178.—Assyria possesses a vast number of great cities, whereof the most renowned and strongest at this time was Babylon, whither, after the fall of Nineveh, the seat of government had been removed. The following is a description of the place:—

The city stands on a broad plain, and is an exact square, a hundred and twenty furlongs in length each way, so that the entire circuit is four hundred and eighty furlongs. While such is its size, in magnificence there is no other city that approaches to it. It is surrounded, in the first place, by a broad and deep moat, full of water, behind which rises a wall fifty royal cubits in width, and two hundred in height. (The royal cubit is longer by three fingers' breadth than the common cubit.)

179. And here I may not omit to tell the use to which the mould dug out of the great moat was turned, nor the manner wherein the wall was wrought. As fast as they dug the moat the soil which they got from the cutting was made into bricks, and when a sufficient number were completed they baked the bricks in kilns. Then they set to building, and began with bricking the borders of the moat, after which they proceeded to construct the wall itself, using throughout for their cement hot bitumen, and interposing a layer of wattled reeds at every thirtieth course of the bricks. On the top along the edges of the wall, they constructed buildings of a single chamber facing one another, leaving between them room for a four-horsed chariot to turn. In the circuit of the wall are a hundred gates, all of brass, with brazen lintels and side-posts. The bitumen used in the work was brought to Babylon from the Is, a small stream which flows into the Euphrates at the point where the city of the same name stands, eight

days' journey from Babylon. Lumps of bitumen are found in great abundance in this river.

180. The city is divided into two portions by the river which runs through the midst of it. This river is the Euphrates, a broad, deep, swift stream, which rises in Armenia, and empties itself into the Erythræan Sea. The city wall is brought down on both sides to the edge of the stream: thence, from the corners of the wall, there is carried along each bank of the river a fence of burnt bricks. The houses are mostly three and four stories high; the streets all run in straight lines, not only those parallel to the river, but also the cross streets which lead down to the water-side. At the river end of these cross streets are low gates in the fence that skirts the stream, which are, like the great gates in the outer wall, of brass, and open on the water.

181. The outer wall is the main defence of the city. There is, however, a second inner wall, of less thickness than the first, but very little inferior to it in strength. The centre of each division of the town was occupied by a fortress. In the one stood the palace of the kings, surrounded by a wall of great strength and size: in the other was the sacred precinct of Jupiter Belus, a square enclosure two furlongs each way, with gates of solid brass; which was also remaining in my time. In the middle of the precinct there was a tower of solid masonry, a furlong in length and breadth, upon which was raised a second tower, and on that a third, and so on up to eight. The ascent to the top is on the outside, by a path which winds round all the towers. When one is about half-way up, one finds a resting-place and seats, where persons are wont to sit some time on their way to the summit. On the topmost tower there is a spacious temple, and inside the temple stands a couch of unusual size, richly adorned, with a golden table by its side. There is no statue of any kind set up in the place, nor is the chamber occupied of nights by any one but a single native woman, who, as the Chaldæans, the priests of this god, affirm, is chosen for himself by the deity out of all the women of the land.

182. They also declare—but I, for my part, do not credit it—that the god comes down in person into this chamber, and sleeps upon the couch. This is like the story told by the Egyptians of what takes place in their city of Thebes, where a woman always passes the night in the temple of the Theban

Jupiter. In each case the woman is said to be debarred all intercourse with men. It is also like the custom of Patara, in Lycia, where the priestess who delivers the oracles, during the time that she is so employed—for at Patara there is not always an oracle—is shut up in the temple every night.

183. Below, in the same precinct, there is a second temple, in which is a sitting figure of Jupiter, all of gold. Before the figure stands a large golden table, and the throne whereon it sits, and the base on which the throne is placed, are likewise of gold. The Chaldæans told me that all the gold together was eight hundred talents' weight. Outside the temple are two altars, one of solid gold, on which it is only lawful to offer sucklings; the other a common altar, but of great size, on which the full-grown animals are sacrificed. It is also on the great altar that the Chaldæans burn the frankincense, which is offered to the amount of a thousand talents' weight, every year, at the festival of the god. In the time of Cyrus there was likewise in this temple a figure of a man, twelve cubits high, entirely of solid gold. I myself did not see this figure, but I relate what the Chaldæans report concerning it. Darius, the son of Hystaspes, plotted to carry the statue off, but had not the hardihood to lay his hands upon it. Xerxes, however, the son of Darius, killed the priest who forbade him to remove the statue, and took it away. Besides the ornaments which I have mentioned, there are a large number of private offerings in this holy precinct.

184. Many sovereigns have ruled over this city of Babylon, and lent their aid to the building of its walls and the adornment of its temples, of whom I shall make mention in my Assyrian history. Among them were two women. Of these, the earlier, called Semiramis, held the throne five generations before the later princess. She raised certain embankments well worthy of inspection, in the plain near Babylon, to control the river which, till then, used to overflow and flood the whole country round about.

185. The later of the two queens, whose name was Nitocris, a wiser princess than her predecessor, not only left behind her, as memorials of her occupancy of the throne, the works which I shall presently describe, but also, observing the great power and restless enterprise of the Medes, who had taken so large a number of cities, and among them Nineveh, and expecting to be attacked in her turn, made all possible

exertions to increase the defences of her empire. And first, whereas the river Euphrates, which traverses the city, ran formerly with a straight course to Babylon, she, by certain excavations which she made at some distance up the stream, rendered it so winding that it comes three several times in sight of the same village, a village in Assyria which is called Ardericca; and to this day, they who would go from our sea to Babylon, on descending to the river touch three times, and on three different days, at this very place. She also made an embankment along each side of the Euphrates, wonderful both for breadth and height, and dug a basin for a lake a great way above Babylon, close alongside the stream, which was sunk everywhere to the point where they came to water, and was of such breadth that the whole circuit measured four hundred and twenty furlongs. The soil dug out of this basin was made use of in the embankments along the waterside. When the excavation was finished, she had stones brought, and bordered with them the entire margin of the reservoir. These two things were done, the river made to wind, and the lake excavated, that the stream might be slacker by reason of the number of curves, and the voyage be rendered circuitous, and that at the end of the voyage it might be necessary to skirt the lake and so make a long round. All these works were on that side of Babylon where the passes lay, . . . and the aim of the queen in making them was to prevent the Medes from holding intercourse with the Babylonians, and so to keep them in ignorance of her affairs.

186. While the soil from the excavation was being thus used for the defence of the city, Nitocris engaged also in another undertaking, a mere bywork compared with those we have already mentioned. The city, as I said, was divided by the river into two distinct portions. Under the former kings, if a man wanted to pass from one of these divisions to the other, he had to cross in a boat; which must, it seems to me, have been very troublesome. Accordingly, while she was digging the lake, Nitocris bethought herself of turning it to a use which should at once remove this inconvenience, and enable her to leave another monument of her reign over Babylon. She gave orders for the hewing of immense blocks of stone, and when they were ready and the basin was excavated, she turned the entire stream of the Euphrates

into the cutting, and thus for a time, while the basin was filling, the natural channel of the river was left dry. Forthwith she set to work, and in the first place lined the banks of the stream within the city with quays of burnt brick, and also bricked the landing-places opposite the river-gates, adopting throughout the same fashion of brickwork which had been used in the town wall; after which, with the materials which had been prepared, she built, as near the middle of the town as possible, a stone bridge, the blocks whereof were bound together with iron and lead. In the daytime square wooden platforms were laid along from pier to pier, on which the inhabitants crossed the stream; but at night they were withdrawn, to prevent people passing from side to side in the dark to commit robberies. When the river had filled the cutting, and the bridge was finished, the Euphrates was turned back again into its ancient bed; and thus the basin, transferred suddenly into a lake, was seen to answer the purpose for which it was made, and the inhabitants, by help of the basin, obtained the advantage of a bridge.

187. It was this same princess by whom a remarkable deception was planned. She had her tomb constructed in the upper part of one of the principal gateways of the city, high above the heads of the passers by, with this inscription cut upon it: "If there be one among my successors on the throne of Babylon who is in want of treasure, let him open my tomb, and take as much as he chooses—not, however, unless he be truly in want, for it will not be for his good." This tomb continued untouched until Darius came to the kingdom. To him it seemed a monstrous thing that he should be unable to use one of the gates of the town, and that a sum of money should be lying idle, and, moreover, inviting his grasp, and he not seize upon it. Now he could not use the gate because, as he drove through, the dead body would have been over his head. Accordingly, he opened the tomb; but instead of money, found only the dead body, and a writing which said: "Hadst thou not been insatiate of pelf, and careless how thou gottest it, thou wouldst not have broken open the sepulchres of the dead."

188. The expedition of Cyrus was undertaken against the son of this princess, who bore the same name as his father Labynetus, and was king of the Assyrians. The Great King, when he goes to the wars, is always supplied with provisions

carefully prepared at home, and with cattle of his own. Water, too, from the river [1] Choaspes, which flows by Susa, is taken with him for his drink, as that is the only water which the kings of Persia taste. Wherever he travels, he is attended by a number of four-wheeled cars drawn by mules, in which the Choaspes water, ready boiled for use, and stored in flagons of silver, is moved with him from place to place.

189. Cyrus on his way to Babylon came to the banks of the Gyndes,[2] a stream which, rising in the Matienian [3] mountains, runs through the country of the Dardanians, and empties itself into the river Tigris. The Tigris, after receiving the Gyndes, flows on by the city of Opis,[4] and discharges its waters into the Erythræan Sea. When Cyrus reached this

[1] This statement of Herodotus is echoed by various writers. What most say of the Choaspes, Strabo reports of the Eulæus, and Pliny mentions both names. But these two writers are probably mistaken in regarding the Eulæus and Choaspes as different rivers. The term Eulæus (Ulai of Daniel) seems to have been applied to the eastern branch of the Kerkhah, which, leaving the main stream at *Pai-Pul*, joined the Shapur, and flowed into the *Karun* at *Ahwaz*.

[2] The Gyndes is undoubtedly the Diyalah, since—firstly—there is no other *navigable* stream after the Lower Zab on the road between Sardis and Susa; and secondly, no other river of any consequence could have to be crossed between the mountains and the Tigris on the march from Agbatana to Babylon. Were it not for these circumstances the river *Gangir*, which is actually divided at Mendalli into a multitude of petty streams, and completely absorbed in irrigation, might seem to have a better claim.

[3] These Matieni are not to be confounded with the Matieni of Asia Minor, who may have been of the same race, but were a distinct people. Herodotus seems to assign to these Matieni the whole of the mountain range from the sources of the Diyalah near Hamadan to those of the Aras (Araxes) near Erzeroum in Upper Armenia.

[4] This is the plain meaning of Herodotus, who has therefore been accused of ignorance by Rennell. But the situation of Opis is uncertain. Strabo, by calling it an emporium might lead us to imagine that its position was low down the river. Xenophon's narrative, it must be granted, makes this impossible. Still, however, Opis may have been a little below the junction of the Diyalah with the Tigris, or at the point of confluence. (If we remember that Xenophon's Median Wall is the enceinte of Babylon, and that the Greeks crossed the Tigris at Sittace, which was on the road from Babylon to Susa, we can hardly fail of identifying the *Diyalah* with the Physcus of Xenophon, and thus recognising Opis in the ruins of *Khafaji*, near the confluence of the two rivers. The name of Physcus, probably comes from *Hupuska*, the title in the inscriptions of the district of *Sulimanieh*. In the name of Opis we have perhaps a Greek nominatival ending as in Is. The cuneiform orthography is *Hupiya*, and I rather think that *Khafaji* is a mere corruption of the original name.)

stream, which could only be passed in boats, one of the sacred white horses accompanying his march, full of spirit and mettle, walked into the water, and tried to cross by himself; but the current seized him, and swept him along with it, and drowned him in its depths. Cyrus, enraged at the insolence of the river, threatened so to break its strength that in future even women should cross it easily without wetting their knees. Accordingly he put off for a time his attack on Babylon, and, dividing his army into two parts, he marked out by ropes one hundred and eighty trenches on each side of the Gyndes, leading off from it in all directions, and setting his army to dig, some on one side of the river, some on the other, he accomplished his threat by the aid of so great a number of hands, but not without losing thereby the whole summer season.

190. Having, however, thus wreaked his vengeance on the Gyndes,[1] by dispersing it through three hundred and sixty channels, Cyrus, with the first approach of the ensuing spring, marched forward against Babylon. The Babylonians, encamped without their walls, awaited his coming. A battle was fought at a short distance from the city, in which the Babylonians were defeated by the Persian king, whereupon they withdrew within their defences. Here they shut themselves up, and made light of the siege, having laid in a store of provisions for many years in preparation against this attack; for when they saw Cyrus conquering nation after nation, they were convinced that he would never stop, and that their turn would come at last.

[1] Rennell sensibly remarks that the story of Cyrus dividing the Gyndes is a very childish one, *in the manner in which it is told.* He supposes that the river was swollen, and that the sole object of Cyrus was to effect the passage. But this explanation is unsatisfactory. I incline to regard the whole story as a fable, embodying some popular tradition with regard to the origin of the great hydraulic works on the *Diyalah* below the Hamaran Hills, where the river has been dammed across to raise the level of the water, and a perfect network of canals have been opened out from it on either side. . . . There are fully 360 streams of water derived from the *Diyalah*, including all the branch cuts from the seven great canals. If Cyrus did indeed execute these works, his object must have been to furnish means of irrigation to the country, and such a motive was scarcely likely to have influenced him when he was conducting a hostile expedition against Babylon. The name of the river Gyndes is probably derived from the cuneiform *Khudun*, a city and district on the banks of the river adjoining *Hupusca*, which is mentioned in the annals of Sardanapalus.

191. Cyrus was now reduced to great perplexity, as time went on and he made no progress against the place. In this distress either some one made the suggestion to him, or he bethought himself of a plan, which he proceeded to put into execution. He placed a portion of his army at the point where the river enters the city, and another body at the back of the place where it issues forth, with orders to march into the town by the bed of the stream, as soon as the water became shallow enough: he then himself drew off with the unwarlike portion of his host, and made for the place where Nitocris dug the basin for the river, where he did exactly what she had done formerly: he turned the Euphrates by a canal into the basin, which was then a marsh, on which the river sank to such an extent that the natural bed of the river was fordable. Hereupon the Persians who had been left for the purpose at Babylon by the river-side, entered the stream, which had now sunk so as to reach about midway up a man's thigh, and thus got into the town. Had the Babylonians been apprised of what Cyrus was about, or had they noticed their danger, they would never have allowed the Persians to enter the city, but would have destroyed them utterly; for they would have made fast all the street-gates which gave upon the river, and mounting upon the walls along both sides of the stream, would so have caught the enemy as it were in a trap. But, as it was, the Persians came upon them by surprise and so took the city. Owing to the vast size of the place, the inhabitants of the central parts (as the residents at Babylon declare) long after the outer portions of the town were taken, knew nothing of what had chanced, but as they were engaged in a festival, continued dancing and revelling until they learnt the capture but too certainly. Such, then, were the circumstances of the first taking of Babylon.

193. . . . The whole of Babylonia is, like Egypt, intersected with canals. The largest of them all, which runs towards the winter sun, and is impassable except in boats, is carried from the Euphrates into another stream, called the Tigris, the river upon which the town of Nineveh formerly stood. . . .

Book III., *Chap.* 150.—After the armament of Otanes had set sail for Samos, the Babylonians revolted, having made every preparation for defence. During all the time

that the Magus was king, and while the seven were conspiring, they had profited by the troubles, and had made themselves ready against a siege. And it happened somehow or other that no one perceived what they were doing. At last when the time came for rebelling openly, they did as follows: having first set apart their mothers, each man chose besides out of his whole household one woman, whomsoever he pleased; these alone were allowed to live, while all the rest were brought to one place and strangled. The women chosen were kept to make bread for the men; while the others were strangled that they might not consume the stores.

151. When tidings reached Darius of what had happened, he drew together all his power, and began the war by marching straight on Babylon, and laying siege to the place. The Babylonians, however, cared not a whit for the siege. Mounting upon the battlements that crowned their walls, they insulted and jeered at Darius and his mighty host. One even shouted to them and said, "Why sit ye here, Persians? why do ye not go back to your homes? Till mules foal ye will not take our city." This was said by a Babylonian who thought that a mule would never foal.

152. Now when a year and seven months had passed, Darius and his army were quite wearied out, finding that they could not anyhow take the city. All stratagems and all arts had been used, and yet the king could not prevail—not even when he tried the means by which Cyrus made himself master of the place. The Babylonians were ever upon the watch, and he found no way of conquering them.

153. At last, in the twentieth month, a marvellous thing happened to Zopyrus, son of the Megabyzus, who was among the seven men that overthrew the Magus. One of his sumpter-mules gave birth to a foal. Zopyrus, when they told him, not thinking that it could be true, went and saw the colt with his own eyes; after which he commanded his servants to tell no one what had come to pass, while he himself pondered the matter. Calling to mind then the words of the Babylonian at the beginning of the siege, "Till mules foal ye shall not take our city"—he thought, as he reflected on this speech, that Babylon might now be taken. For it seemed to him that there was a divine providence in the man having used the phrase, and then his mule having foaled.

154. As soon, therefore, as he felt within himself that Babylon was fated to be taken, he went to Darius and asked him if he set a very high value on its conquest. When he found that Darius did indeed value it highly, he considered further with himself how he might make the deed his own, and be the man to take Babylon. Noble exploits in Persia are ever highly honoured and bring their authors to greatness. He therefore reviewed all ways of bringing the city under, but found none by which he could hope to prevail, unless he maimed himself and then went over to the enemy. To do this seeming to him a light matter, he mutilated himself in a way that was utterly without remedy. For he cut off his own nose and ears, and then, clipping his hair close and flogging himself with a scourge, he came in this plight before Darius.

155. Wrath stirred within the king at the sight of a man of his lofty rank in such a condition; leaping down from his throne, he exclaimed aloud, and asked Zopyrus who it was that had disfigured him, and what he had done to be so treated. Zopyrus answered, "There is not a man in the world, but thou, O king, that could reduce me to such a plight—no stranger's hands have wrought this work on me, but my own only. I maimed myself because I could not endure that the Assyrians should laugh at the Persians." "Wretched man," said Darius, "thou coverest the foulest deed with the fairest possible name, when thou sayest thy maiming is to help our siege forward. How will thy disfigurement, thou simpleton, induce the enemy to yield one day the sooner? Surely thou hadst gone out of thy mind when thou didst so misuse thyself." "Had I told thee," rejoined the other, "what I was bent on doing, thou wouldst not have suffered it; as it is, I kept my own counsel, and so accomplished my plans. Now, therefore, if there be no failure on thy part, we shall take Babylon. I will desert to the enemy as I am, and when I get into their city I will tell them that it is by thee I have been thus treated. I think they will believe my words, and entrust me with a command of troops. Thou on thy part, must wait till the tenth day after I am entered within the town, and then place near to the gates of Semiramis a detachment of thy army, troops for whose loss thou wilt care little, a thousand men. Wait, after that, seven days, and post me another detachment,

two thousand strong, at the Nineveh gates; then let twenty days pass, and at the end of that time station near the Chaldæan gates a body of four thousand. Let neither these nor the former troops be armed with any weapons but their swords—those thou mayest leave them. After the twenty days are over, bid thy whole army attack the city on every side, and put me two bodies of Persians, one at the Belian the other at the Cissian gates; for I expect that, on account of my successes, the Babylonians will entrust everything, even the keys of their gates, to me. Then it will be for me and my Persians to do the rest."

156. Having left these instructions, Zopyrus fled towards the gates of the town, often looking back, to give himself the air of a deserter. The men upon the towers, whose business it was to keep a look-out, observing him, hastened down, and setting one of the gates slightly ajar, questioned him who he was, and on what errand he had come. He replied that he was Zopyrus, and had deserted to them from the Persians. Then the doorkeepers, when they heard this, carried him at once before the Magistrates. Introduced into the assembly, he began to bewail his misfortunes, telling them that Darius had maltreated him in the way they could see, only because he had given advice, that the siege should be raised, since there seemed no hope of taking the city. "And now," he went on to say, "my coming to you, Babylonians, will prove the greatest gain that you could possibly receive, while to Darius and the Persians it will be the severest loss. Verily, he by whom I have been so mutilated, shall not escape unpunished. And truly all the paths of his counsels are known to me." Thus did Zopyrus speak.

157. The Babylonians, seeing a Persian of such exalted rank in so grievous a plight, his nose and ears cut off, his body red with marks of scourging and with blood, had no suspicion but that he spoke the truth, and was really come to be their friend and helper. They were ready, therefore, to grant him anything that he asked; and on his suing for a command, they entrusted to him a body of troops, with the help of which he proceeded to do as he had arranged with Darius. On the tenth day after his flight he led out his detachment, and surrounding the thousand men, whom Darius according to agreement had sent first, he fell upon

them and slew them all. Then the Babylonians, seeing that his deeds were as brave as his words, were beyond measure pleased, and set no bounds to their trust. He waited, however, and when the next period agreed on had elapsed, again with a band of picked men he sallied forth, and slaughtered the two thousand. After this second exploit his praise was in all mouths. Once more, however, he waited till the interval appointed had gone by, and then leading the troops to the place where the four thousand were, he put them also to the sword. This last victory gave the finishing stroke to his power, and made him all in all with the Babylonians: accordingly they committed to him the command of their whole army, and put the keys of their city into his hands.

158. Darius now, still keeping to the plan agreed upon, attacked the walls on every side, whereupon Zopyrus played out the remainder of his stratagem. While the Babylonians, crowding to the walls, did their best to resist the Persian assault, he threw open the Cissian and the Belian gates, and admitted the enemy. Such of the Babylonians as witnessed the treachery, took refuge in the temple of Jupiter Belus; the rest, who did not see it, kept at their posts, till at last they too learnt that they were betrayed.

159. Thus was Babylon taken for the second time. Darius, having become master of the place, destroyed the wall, and tore down the gates; for Cyrus had done neither the one nor the other when he took Babylon. He then chose out near three thousand of the leading citizens, and caused them to be crucified, while he allowed the remainder still to inhabit the city. Further, wishing to prevent the race of the Babylonians from becoming extinct, he provided wives for them in the room of those whom (as I explained before) they strangled, to save their stores. These he levied from the nations bordering on Babylonia, who were each required to send so large a number to Babylon, that in all there were collected no fewer than fifty thousand. It is from these women that the Babylonians of our times are sprung.

Book V., *Chap.* 52.—*The Royal Road from Sardis to Susa.*—Now the true account of the road in question is the following: Royal [1] stations exist along its whole length, and excellent

[1] By "royal stations" are to be understood the abodes of the king's couriers, who conveyed despatches from their own

caravanserais; and throughout it traverses an inhabited tract, and is free from danger. In Lydia and Phrygia there are twenty stations within a distance of 94½ parasangs. On leaving Phrygia the Halys has to be crossed; and here are gates through which you must needs pass ere you can traverse the stream. A strong force guards this post. When you have made the passage, and are come into Cappadocia, 28 stations and 104 parasangs bring you to the borders of Cilicia, where the road passes through two sets of gates, at each of which there is a guard posted. Leaving these behind, you go on through Cilicia, where you find three stations in a distance of 15½ parasangs. The boundary between Cilicia and Armenia is the river Euphrates, which it is necessary to cross in boats. In Armenia the resting-places are 15 in number, and the distance is 56½ parasangs. There is one place where a guard is posted. Four large streams intersect this district,[1] all of which have to be crossed by means of boats. The first of these is the Tigris; the second and the third have both of them the same name,[2] though they are not only different rivers, but do not even run from the same place.[3] For the one which I have called the first of the two

station to the next, and then returned. The route described is probably at once the post-route and the caravan-route between the two capitals. It passes by . . . *Mosul* (Nineveh), *Arbil* (Arbela), and *Kirkuk*.

[1] Armenia is here given an extraordinary extension to the south, and so made to include a large tract ordinarily reckoned either to Assyria or Media.

[2] Undoubtedly the two Zabs, the Greater and the Lesser. These rivers, which gave the appellation of Adiabene to the region watered by them (Ammian. Marcell. XXIII. 6; Bochart, Sac. Geog. IV. 19, p. 248), seem to have retained their names unchanged from the earliest times to the present. The Greater Zab, at any rate, appears under that title in the Assyrian Inscriptions; it is also, undoubtedly, the Zabatus of Xenophon (Anab. II., v. 5, and III. iii. 6), and the Diava or Diaba of Ammianus (I. *s.c.*). The Lesser Zab is a less famous stream; but its continuity of the name appears from this passage, combined with the mention of it by Ammianus as the Adiava or Adiaba, and with the fact of its present appellation.

The word Zab, Diab, or Diav, according to Bochart (I. *s.c.*), signifies "a wolf" in Chaldee. Hence the Greater Zab is called Λύκος (Lycus) in Strabo, Ammianus, and Pliny, and Λευκός (by mistake) in Ptolemy (Georg. VI. 1).

[3] What Herodotus here states is exactly true of the two Zabs. The Greater Zab has its source in Armenia between the lakes of Van and Urumiyeh—the Lesser rises in the Kurdish mountains (his Matienian Hills) at a distance of nearly two degrees to the S.S.E.

has its source in Armenia, while the other flows afterwards out of the country of the Matienians. The fourth of the streams is called the Gyndes, and this is the river which Cyrus dispersed by digging for it three hundred and sixty channels. Leaving Armenia and entering the Matienian country, you have four stations; these passed you find yourself in Cissia, where eleven stations and 42½ parasangs bring you to another navigable stream, the Choaspes, on the banks of which the city of Susa is built. Thus the entire number of the stations is raised to one hundred and eleven; and so many are in fact the resting-places that one finds between Sardis and Susa.

Book VIII., *Chap.* 98.—*Persian Messengers.*—Nothing mortal travels so fast as these Persian messengers. The entire plan is a Persian invention; and this is the method of it. Along the whole line of road there are men (they say) stationed with horses, in number equal to the number of days which the journey takes, allowing a man and horse to each day; and these men will not be hindered from accomplishing at their best speed the distance which they have to go, either by snow, or rain, or heat, or by the darkness of night. The first rider delivers his despatch to the second, and the second passes it to the third; and so it is borne from hand to hand along the whole line, like the light in the torch race, which the Greeks celebrate to Vulcan. The Persians give the riding-post in this manner, the name of "Angarum."

APPENDIX 6

THE ANABASIS OF THE EXPEDITION OF CYRUS THE YOUNGER

Translated by ASHLEY, SPELMAN, SMITH, FIELDING, and others

IN marching through the country they came to the river Masca, a hundred feet in breadth, surrounding a large city, uninhabited, called Corsote; whence after continuing three days, making their provisions, he [Cyrus] made ninety parasangs in thirteen days' march, through a desert, still keeping the Euphrates on his right and came to Pylæ.

. . . . .

Book I., *Chap.* 7.—Cyrus next proceeded through the country of Babylon, and after completing twelve parasangs in three days' march, reviewed his forces, both Greeks and Barbarians, in a plain, about midnight (expecting the King would appear the next morning, at the head of his Army, ready to give him battle).

. . . . .

While the soldiers were accomplishing themselves for the action, the number of the Greeks was found to amount to ten thousand four hundred heavy armed men, and two thousand four hundred targeteers; and that of the Barbarians in the service of Cyrus, to one hundred thousand men, with about twenty chariots armed with scythes. The enemy's army was said to consist of twelve hundred thousand men, and two hundred chariots armed with scythes, besides six thousand horse, under the command of Artagerses, all of which were drawn up before the King, whose army was commanded by four Generals, commanders and leaders, Abrocomas, Tissaphernes, Gobryas, and Arbaces who had each the command of three hundred thousand men; but of this number nine hundred thousand only were present at the

battle, together with one hundred and fifty chariots armed with scythes; for Abrocomas, coming out of Phœnicia, arrived five days after the action. This was the account the deserters gave to Cyrus before the battle, which was afterwards confirmed by the prisoners. From thence Cyrus, in one day's march, made three parasangs, all his forces, both Greeks and Barbarians, marching in order of battle; because he expected the King would fight that day; for in the middle of their march, there was a trench cut five fathoms broad, and three deep, extending twelve parasangs upwards, traversing the plain as far as the Wall of Media. In this plain are four canals derived from the river Tigris; being each one hundred feet in breadth, and deep enough for barges laden with corn to sail therein; they fall into the Euphrates, and are distant from one another one parasang, having bridges over them.

The great King, hearing Cyrus was marching against him, immediately caused a trench to be made (by way of fortification) near the Euphrates; close to which also, there was a narrow pass, through which Cyrus and his army marched, and came within the trench, when, finding the King did not engage that day, by the many tracks that appeared both of horses and men which were retreating, he sent for Silanus, the soothsayer of Ambracia, and, agreeable to his promise, gave him three thousand daricks, because the eleventh day before that when he was offering sacrifice, he told Cyrus, the King would not fight within ten days; upon which Cyrus said, "If he does not fight within that time, he will not fight at all; and if what you say proves true, I will give you ten talents." Since, therefore, the King had suffered the army of Cyrus to march through this pass unmolested, both Cyrus and the rest concluded that he had given over all thoughts of fighting, so that the next day Cyrus marched with less circumspection; and the third day rode on his car, very few marching before him in their ranks; a great part of the soldiers observed no order, many of their arms being carried in wagons, and upon sumpter horses.

Chap. 8.—It was now about the time of day, when the market is usually crowded, the army being near the place where they proposed to encamp, when Patagyas, a Persian, one of those whom Cyrus most confided in, was seen riding towards them full speed, his horse all in a sweat, and he calling to every one he met, both in his own language and in

Greek, that the King was at hand with a vast army, marching in order of battle; which occasioned a general confusion among the Greeks, all expecting he would charge them before they had put themselves in order; but Cyrus leaping from his car, put on his corslet, then mounting his horse, took his javelins in his hand, ordered all the rest to arm, and every man to take his post; by virtue of which command they quickly formed themselves, Clearchus on the right wing close to the Euphrates, next to him Proxenus, and after him the rest; Menon and his men were posted on the left of the Greek Army. Of the Barbarians, a thousand Paphlagonian horse, with the Greek targeteers, stood next to Clearchus on the right; upon the left Ariæus, Cyrus' Lieutenant-General, was placed with the rest of the Barbarians; they had large corslets and cuirasses, and all of them helmets but Cyrus, who placed himself in the centre with six hundred horse, and stood ready for the charge, with his head unarmed.

Then follows a description of the battle, which we will omit except for such passages as concern the topography of the locality.

Chap. 10.—Cyrus was slain; when Cyrus was dead, his head and his right hand were cut off upon the spot, and the King with his men in the pursuit broke into his camp; while those with Ariæus no longer made a stand, but fled through their own camp to their former post, which was said to be four parasangs from the field of battle. . . . The Greeks who were left to guard the baggage, forming themselves, killed many of those who were plundering the camp, and lost some of their own men; however, they did not fly, but saved . . . the men and effects, and, in general, everything that was in their quarter. The King and the Greeks were now at the distance of about 30 stadia from one another, pursuing the enemy that were opposite them, as if they had gained a complete victory; and the King's troops plundering the camp of the Greeks as if they also had been everywhere victorious.

Tissaphernes did not fly at the first onset, but penetrated with his horse, where the Greek targeteers were posted, quite as far as the river. However, in breaking through, he killed none of their men, but the Greeks dividing, wounding his people both with their swords and darts. . . . Tissaphernes,

therefore, as sensible of his disadvantage, departed, when coming to the camp of the Greeks found the King there, and reuniting their forces, they advanced and presently came opposite to the left of the Greeks. . . . However, the King marched by them, and drew up his army opposite to theirs in the same order in which he first engaged; whereupon the Greeks, seeing they drew near in order of battle, again sung the pæan, and went on with much more alacrity than before; but the Barbarians did not stay to receive them, having fled sooner than the first time to a village, where they were pursued by the Greeks who halted there; for there was an eminence above the village, upon which the King's forces faced about. He had no foot with him, but the hill was covered with horse, in such a manner that it was not possible for the Greeks to see what was doing. . . . When the Greeks advanced towards them, the horse quitted the hill, not in a body, but some running one way and some another. However, the hill was cleared of them by degrees, and at last they all left it. Clearchus did not march up the hill with his men, but, halting at the foot of it, sent Lycius the Syracusan, and another, with orders to reconnoitre the place, and make their report; Lycius rode up the hill, and, having viewed it, brought word that the enemy fled in all haste. Hereupon the Greeks halted (it being near sunset), and lying under their arms, rested themselves; in the meantime wondering that neither Cyrus appeared, nor any one from him, not knowing he was dead, but imagined that he was either led away by the pursuit, or had ridden forward to possess himself of some post; however, they consulted among themselves whether they should stay where they were, and send for their baggage, or return to their camp. To the latter they resolved upon, and arriving at their tents about supper-time, found the greatest part of their baggage plundered, with all the provisions, besides the carriages, which, as it was said, amounted to four hundred, full of flour and wine, which Cyrus had prepared, in order to distribute them among the Greeks, lest at any time his army should labour under the want of necessaries; but they were all so rifled by the King's troops that the greatest part of the Greeks had no supper, neither had they eaten any dinner; for, before the army could halt in order to dine, the King appeared. And in this manner they passed the night. . . . They had made from Ephesus (a city of

Ionia) to the field of battle ninety-three marches, which amounted to five hundred and thirty-five parasangs, or sixteen thousand and fifty stadia; and, from the field of battle to Babylon, it was computed there were three thousand and sixty stadia.

. . . . .

Book II., *Chap.* 1.—As soon as the day approached, the Generals being assembled, wondered that Cyrus neither sent them any orders nor appeared himself; resolved, therefore, to collect what was left of their baggage, and armed themselves to move forward in order to join Cyrus; but just as they were on the point of marching, and as soon as the sun was risen, Procles, who was Governor of Teuthrania, a descendant from Damartus the Lacedæmonian, and Glus, the son of Tamos, came to them and declared that Cyrus was dead, and that Ariæus had left the field, and had retired with the rest of the Barbarians to the camp they had left the day before, where he said he would stay for them that day, if they thought fit to come, but that the next he should return to Ionia, whence he came. The Generals, and the rest of the Greeks, hearing this, were greatly afflicted, and Clearchus with astonishment said, "Would to God Cyrus was alive! but since he is dead, let Ariæus know, that we have overcome the King, and as you see, meet with no further resistance and that, if he will come hither, we will place him on the throne; for those who gain the victory, gain with it a right to command." After he had said this, he directly sent back the messengers, together with Cheirisophus the Lacedæmonian, and Menon the Thessalian; for Menon himself desired it, he being a friend to Ariæus, and engaged to him by an intercourse of hospitality. Clearchus stayed till they returned, making provisions as well as he could by killing the oxen and asses that belonged to the baggage; and instead of other wood, made use of the arrows, which they found in great quantities in the field of battle, not far from the place where their army lay (and which the Greeks obliged the deserters to pull out of the ground); and also of the Persian bucklers, and the Egyptian shields, that were made of wood, besides a great many targets, and empty waggons with which they all dressed their victuals, and in this manner supported themselves that day.

It was now about the time the market is generally full, when the heralds arrived with the message from the King and Tissaphernes, all of whom were Barbarians (except Phalinus, who was a Greek, and happened then to be with Tissaphernes, by whom he was much esteemed, for he pretended to understand tactics and the exercise of arms) who, after assembling together the Greek commanders, said that the King, since he had gained the victory, and killed Cyrus, ordered the Greeks to deliver up their arms, and, repairing to court, endeavour to obtain some favourable terms from the King. The Greeks received this with much indignation; however, Clearchus said no more to them than that, "It was not the part of conquerors to deliver up their arms; but," addressing himself to the Generals, "do you make the best and most becoming answer you can, and I will return immediately;" he being called out by one of his servants to inspect the entrails of the victim which he was then offering up in sacrifice.

Then follows the dialogue between the heralds of Artaxerxes and the Greek Generals, which it is unnecessary to repeat, after which we read that—

In the meantime Clearchus returned, and asked if they had already given their answer. To whom Phalinus said, "These men, O Clearchus! say one, one thing, and another, another, but pray let us have your thoughts."

Next ensues the conversational partee and repartee between Clearchus and Phalinus, coming to a close with a final parry and thrust—

Clearchus replied, "Let the King know, that in this we are of the same opinion with him." "What is that?" said Phalinus. Clearchus answered, "If we stay, there may be peace, but if we march back, or advance, war." Phalinus again asked, "Shall I report peace or war?" Clearchus replied, "Peace, if we stay, and if we march back or advance, War"; but he did not declare what he proposed to do. So Phalinus and those with him went away.

Chap. 2.—In the meantime Procles and Cheirisophus came from Ariæus, leaving Menon with him, and brought word that Ariæus said there were many Persians of greater consideration than himself who would never suffer him to

be their king; but desires, if you propose marching away with him, that you will come to him to-night; if not, he says he will depart the next morning early. Clearchus answered, "What you advise is very proper, if we join him; if not, do whatever you think expedient to your advantage"; for he would not acquaint even these with his purpose. After this, when it was sunset, he assembled the Generals and Captains, and spoke to them as follows: "Gentlemen, I have consulted the Gods by sacrifice, concerning marching against the King, and the victims with great reason forbid it; for I am now informed, that between us and the King lies the Tigris, a navigable river, which we cannot pass without boats, and these we have not; neither is it possible for us to stay here, for we are without provisions. But the victims were very favourable to the design of joining Cyrus' friends. The order therefore we ought to pursue is this; let every man retire and sup upon what he has, and when the horn sounds to rest, pack up your baggage; when it sounds a second time, charge the sumpter horses; and when a third, follow your leader and let the baggage march next to the river, and the heavy-armed men cover it." The Generals and the Captains hearing this departed, and did as they were directed. Clearchus having taken upon him the command of the army, who submitted to him, not as having elected him to that employment, but because they were sensible that he alone was equal to the command, the rest being without experience.

After this, as soon as it was dark, Miltocythes the Thracian, with his horse, being forty in number, and three hundred Thracian foot, deserted to the King. Clearchus, in the manner he had appointed, led the rest and about midnight arrived at their first camp, where they found Ariæus with his army; and the men being drawn up and standing to their arms, the Generals and Captains of the Greeks went in a body to Ariæus, and both they and he, with the most considerable men about him, took an oath not to betray one another and to become allies. The Barbarians also swore that they would conduct them without deceit. This was the substance of the oath, which was preceded by the sacrifice of a boar, a bull, a wolf, and a ram, whose blood being all mixed together in the hollow of a shield, the Greeks dipped a sword therein, and the Barbarians a spear. When they had pledged their faith, Clearchus said, "Since, O

Ariæus, your route and ours are the same, say, what is your opinion concerning our march? Shall we return the same way we came, or have you thought of any other more convenient?" Ariæus answered, "If we return the same way we came, we shall all perish with hunger; since we are now entirely destitute of provisions; for during the last seventeen days' march we could supply ourselves with nothing out of the country, even in our way hither; and, whatever was found there, we have consumed in our passage; so that though the way we now propose to take is longer, yet we shall be in no want of provisions. We must make our first marches as long as ever we can, to the end we may get as far as possible from the King's army; for if we can once gain two or three days' march of him, it will not after that be in his power to overtake us; since with a small army he will not dare to follow us, and with a great one he will not be able to make quick marches; it is also probable he may want provisions." This, says he, is my opinion.

This scheme for the march of the army was calculated for nothing but a retreat or a flight; but fortune proved a more glorious conductor. As soon, therefore, as it was day they began their march, with the sun on their right, expecting to arrive by sunset at some village that lay in the country of Babylon, and in this they were not mistaken. But in the afternoon they thought they saw the enemy's horse; upon which not only the Greeks, who happened to have left their ranks, ran to them in all haste, but Ariæus also alighting (for being wounded he was carried in a chariot), put on his corslet, as did all those about him. But while they were arming, the scouts who had been sent out, brought word that they were not horse, but only sumpter horses at pasture, whence every one presently concluded that the King's camp was not far off; for a smoke also appeared in the neighbouring villages. However, Clearchus did not lead them against the enemy (for he knew the men were tired, and had eaten nothing all day, besides it was too late), neither did he march out of the way, avoiding the appearance of a flight; but leading them directly forward, at sunset he quartered with the vanguard in the villages nearest to him, out of which the King's army had carried away even the timber that belonged to the houses. Those who arrived first, camped with some kind of uniformity, but the others who followed,

coming up when it was dark, quartered as they could, and made so great a noise in calling out to one another, that the enemy heard them, of whom those who lay nearest to the Greeks ran away, leaving even their tents; which being known the next day, no sumpter horses or camp appeared, neither was there any smoke to be seen in the neighbourhood; and the King himself it seems was struck at the approach of our army, by what he did the next day.

On the other side, the night advancing, the Greeks also were seized with fear, which was attended with a tumult and noise, usual in such cases; upon this, Clearchus ordered Tolmides of Elis, the best crier of his time, whom he happened to have with him, to command silence, and make proclamation from the commanders, that whoever gave information of the person who had turned the ass into the quarter of the heavy-armed men, should receive the reward of a silver talent. By this proclamation, the soldiers understood that their fear was vain, and their commanders safe. At break of day, Clearchus ordered the Greeks to stand to their arms in the same disposition they had observed in the action.

Chap. 3.—What I said concerning the King's being terrified at our approach, became then manifest; for, having sent to us the day before, demanding our arms, he sent also heralds by sunrise to treat of a truce, who coming to the out-guards, inquired for the Commanders. Clearchus, who was then viewing the ranks, ordered them to stay till he was at leisure; and, as soon as he had drawn up the army with much elegance, the ranks being closed on all sides and no unarmed men to be seen, sent for the messengers; came forward himself, attended by those of his soldiers who were the best armed and most graceful in their persons, desiring the rest of the Generals to do the like, and asked the messengers what they wanted? They replied they were persons come to treat of a truce, being properly qualified to carry messages between the King and the Greeks. He answered, "Let the King know, that first we must fight, for we have nothing to dine on, and there is no man so hardy as to mention a truce to the Greeks, unless he first provides them a dinner." The messengers hereupon departed, but returning presently (by which it appeared that the King was near at hand, or some other person who was appointed to

transact this matter), brought word, "the King thought their demand very reasonable," and that they had with them guides, who, if a truce were concluded, should conduct them to a place where they should find provisions. Clearchus then asked, whether the King proposed to comprehend those only in the truce who went between him and them, or whether it should extend to all? They said, to all, till the King is informed of your proposals. Whereupon Clearchus, ordering them to withdraw immediately, held a council, where it was resolved to conclude a truce, and to march peaceably to the place where the provisions were, and supply themselves therewith. Clearchus said, "I join with you in this opinion; however, I will not directly acquaint the messengers with our resolution, but defer it till they apprehend lest we should reject the truce. I imagine our soldiers also will be under the same apprehension." Therefore, when he thought it time, he let them know that he would enter into a truce, and immediately ordered the guides to conduct them where they might get provisions. Clearchus, upon marching with his army in order of battle to conclude the truce, having himself taken charge of the rear, met with ditches and canals full of water, so that they were not able to pass without bridges, which they made with palm trees, having found some lying upon the ground, and others they cut down. Upon this occasion it might be observed, how equal Clearchus was to the command; for taking his pike in his left hand, and a staff in his right, if he saw any of those he had appointed to this service, backward in the execution of it, he displaced him, and substituted a proper person in his room, he himself at the same time, going into the dirt, and assisting them; so that every one was ashamed not to be active. He had appointed men of thirty years of age to this service; but when those of a more advanced age saw Clearchus forwarding the work in person, they gave their assistance also. Clearchus pressed it the more, because he suspected the ditches were not always so full of water (for it was not the season to water the country), imagining the King had ordered the waters to be let out, with this view, that the Greeks might foresee great difficulties attending their march.

At last, coming to the villages, where the guides told them they might supply themselves with provisions, they found plenty of corn, and wine made from the fruit of the palm

tree, and also vinegar, drawn by boiling from the same fruit. . . . Here they stayed three days; during which Tissaphernes, with the Queen's brother and three other Persians, coming from the great King attended by many slaves, were met by the Greek Generals, when Tissaphernes by an interpreter, first spoke in the following manner:—

Here is recorded the gist of the pourparlers between Tissaphernes and Clearchus which does not call for repetition, the final word resting with the former, in which he proclaims that he will acquaint the King and immediately return with his sentiment stating—

Let the truce continue; in the meantime we will provide a market for you.

The narrative continues by describing that—

The next day he did not return, which gave the Greeks some uneasiness; but the third day he came.

Then follows a statement of the mutual pledges and oaths taken by both parties to the truce which we will pass over. Tissaphernes closing the negotiations by saying—

I must now return to the King and, when I have despatched what is necessary, I will come back to you with all things in readiness both to conduct you into Greece, and return myself to my own Government.

We next read that—

Chap. 4.—Hereupon, the Greeks and Ariæus, being encamped near to one another, waited for Tissaphernes above twenty days.

In the meantime, Tissaphernes arrived with his forces, as if he designed to return home, and with him Orontes also with his men, and the King's daughter, whom he had married. From thence they began their march, Tissaphernes leading the way, and providing them with a market. Ariæus marched at the head of the Barbarians, who had served under Cyrus, with Tissaphernes and Orontes, and encamped with them. The Greeks being diffident of these, marched by themselves having guides to conduct them. Each of them always encamped separately, at the distance of a parasang,

or less; and were each upon their guard against one another, as against an enemy; and this immediately created a suspicion. Sometimes, while they were providing themselves with wood, forage, or other things of that nature, they came to blows; which also bred ill-blood between them. After three days' march they came to and passed through the Wall of Media, which was built with burned bricks laid in bitumen, being twenty feet in thickness, one hundred in height, and as it was said twenty parasangs in length, and not far from Babylon.

From thence they made, in two days' march, eight parasangs, and passed two canals; one upon a bridge, the other upon seven pontoons. These canals were derived from the Tigris; from them ditches were cut that ran into the country, the first broad, then narrower, which at last ended in small watercourses, such as are used in Greece to water panic [a description of millet]. Thence they came to the river Tigris, near which stood a large and populous city, called Sitace, at the distance of fifteen stadia from the river; the Greeks encamped close to the town, near a large and beautiful park, thick with trees of every kind, and the Barbarians on the other side of the Tigris, but out of sight of our army. After supper Proxenus and Xenophon happened to be walking before the quarter where the heavy-armed men lay encamped; when a man came and asked the out-guards, where he might speak with Proxenus or Clearchus; but did not enquire for Menon, though he came from Ariæus, with whom Menon lived in hospitality; and when Proxenus told him he was the person he inquired after, the man said, "Ariæus and Artæzus, who were faithful to Cyrus, and wish you well, sent me to advise you to stand upon your guard, lest the Barbarians attack you to-night, there being numerous forces posted in the neighbouring park. They advise you also to send a detachment to guard the bridge over the Tigris, because Tissaphernes designs if he can, to break it down to-night; to the end, that you may not be able to pass the river, but be shut in between the Tigris and the canal." Hereupon, they carried him to Clearchus and informed him of what he said; upon which, Clearchus was in great consternation; when a young man who was present, having considered the matter, said, "To attack us, and break down the bridge, too, are things inconsistent; for it is plain if they attack us,

they must either conquer, or be conquered; if they conquer, why should they break down the bridge? for, in that case, though there were many bridges we should have no place to retreat to with safety; on the other side, if we conquer them and the bridge be broken down, they themselves will have no place to fly to; neither can the rest of their army, though in great numbers on the other side, if they break it down, give them any assistance."

Clearchus, hearing this, asked the messenger, of what extent the country was that lay between the Tigris and the canal; he answering, it was of large extent, and contained, besides villages many large cities; they concluded that the Barbarians had sent this man insidiously, from an apprehension, lest the Greeks should not pass the bridge, but remain in the island, which was defended on one side by the Tigris, and on the other by the canal; where the country that lay between being large and fruitful, and in no want of labourers to cultivate it, might both supply them with provisions, and afford them a retreat, if they were disposed to make war upon the King; after which they went to rest; however, they sent a detachment to guard the bridge; but no attempt of any kind was made upon their camp, neither did any of the enemy come up to the bridge, as the guards informed us. The next morning by break of day they passed the bridge, which was supported by thirty-seven pontoons, with all possible precaution; for some of the Greeks who were with Tissaphernes, sent word that the enemy designed to attack them in their passage; but this did not prove true. However, while they were passing the river, Glus appeared with some others observing whether they passed it or not; when perceiving they did, he rode off.

From the Tigris they made, in four days' march, twenty parasangs, and came to the river Physcus, one hundred feet in breadth, having a bridge over it. Here stood a large and populous city called Opis, where they were met by a natural brother to Cyrus, and Artaxerxes, who was marching to the assistance of the King, at the head of a numerous army, which he had drawn out of Susa and Ecbatana, and causing his troops to halt, he took a view of the Greeks as they passed by him. Clearchus led his men two by two, standing still from time to time. Thus, while the vanguard halted, the whole army was obliged to stand still, which made their

forces appear very numerous, even to the Greeks themselves, and the Persian was struck with the sight.

(17) Hence they proceeded through Media, six days' march through a desert country, a distance of thirty parasangs, when they arrived at the villages of Parysatis, the mother of Cyrus and the King; which Tissaphernes, in mockery of Cyrus, gave permission to the Greeks to plunder of everything except the slaves. There was found in them a great quantity of corn, and sheep, and other property. (18) Hence they advanced in a march of five days more through the desert, a distance of twenty parasangs, having the Tigris on their left. At the end of the first day's march there was situate on the opposite bank of the river a large and opulent city, called Cænæ, whence the Barbarians brought over, on rafts made of hide, a supply of bread, cheese, and wine.

Chap. 5.—(1) Soon after, they arrived at the river Zabatus, the breadth of which was four plethra. Here they remained three days.

APPENDIX 7

THE CYROPÆDIA OR INSTITUTION OF CYRUS

Literally translated from the Greek of Xenophon by the Rev. J. S. WATSON, M.A., and the Rev. HENRY DALE, M.A.

BOOK VII., *Chap.* 4.—(12) Cyrus then set forward from Sardes, leaving there a numerous garrison of infantry, and taking with him Crœsus, and a great many waggons loaded with abundance of valuable property of every kind. . . . (16) In his march to Babylon he subdued the Phrygians of Greater Phrygia; he subdued also the Cappadocians, and reduced the Arabians to submission. Out of all these he made up not less than forty thousand Persian horsemen [1]; and many of the horses, that belonged to the prisoners, he distributed amongst the body of his allies. He arrived at Babylon with a vast number of cavalry, a vast number of archers and javelin-men, and of slingers a countless multitude.

Chap. 5.—(1) When Cyrus reached Babylon, he ranged his whole army round the city, and then rode round it himself, with his friends, and the principal men of the allies. (2) When he had taken a view of the walls, he prepared to draw off the army from before the city; and a deserter coming off, told him, that they intended to fall upon him when he was leading the army away. "For as they surveyed it from the walls," said he, "your line appeared to them to be but weak." Nor was it strange that such was the case; for, as his men encompassed a great extent of wall, his line was, of necessity, of little depth. (3) Cyrus, having heard this, took his stand in the centre of his army, with those that were about him, and gave orders that the heavy-armed men, drawing back their line from each extremity, should move towards that part of the army that stood still, till each wing came over

[1] That is, horsemen armed after the Persian manner.

against himself and the centre. (4) As they made this movement, those who kept their place felt more confidence from being of double depth; and those that changed their place felt more confidence likewise, for they that stood were of course next to the enemy. When, moving thus from each wing, they had united the extremities, they stood their ground with much more firmness; those who had altered their position by reason of those in front, and those in front by reason of those who had come up behind them; (5) and as the line was thus drawn back, the best soldiers were necessarily to the front and rear, while the worst were ranged in the middle. A disposition of this kind seemed to be well adapted both for fighting and to prevent flight; and the horse and light-armed men from the wings came up always so much nearer the commander-in-chief, as the line became less extended by being doubled in depth. (6) When they were thus collected together, they retreated, as long as weapons would reach them from the walls with their face toward the enemy; but when they were out of reach of the weapons, they wheeled about, and moving forward at first but a few steps, wheeled again to the left, and halted facing the walls; and the farther they drew off, the less frequently they faced about; and when they thought themselves safe, they marched off without stopping till they reached their tents.

(7) When they had encamped, Cyrus summoned to him the principal officers, and said, "Friends and allies, we have taken a view of the city round about, and I am unable to see how any enemy can take walls of such strength and height by assault. But the greater the number of men in the city is, so much the sooner (since they do not come out to fight), I conceive that they may be reduced by famine. Unless you have some other method to propose, therefore, I think that the people must be besieged and taken by that means." (8) Chrysantas then said, "Does not this river, that is above two stadia in breadth, run through the midst of the city?" "Yes, indeed," said Gobryas, "and is of so great a depth, that two men, one standing upon the other, would not reach above the water; so that the city is still better defended by the river than by its walls." (9) Cyrus then said, "Chrysantas, let us think no more of what is beyond our power; it must be our business, as soon as possible, to dig

as broad and deep a trench as we can, measuring out the proper proportion for each division, so that we may want the fewer men to keep guard." (10) Measuring out, accordingly, the ground around the wall, and leaving a space by the side of the river sufficient to hold large towers, he dug on each side of the wall a very deep trench, and the men threw up the earth towards themselves.[1] (11) He then, in the first place, built towers upon the bank of the river, laying their foundations with palm-trees not less than a hundred feet in length; for there are some that grow even to a yet greater length; and palm-trees that are pressed by a weight, bend up under it, like asses used to carrying loads. (12) He placed these below, with this object, that he might make it appear, as much as possible, that he was preparing to blockade the city, and in order that, if the river forced its way into the ditch, it might not carry off the towers. He raised likewise a great many other towers upon the earth which was thrown up, that he might have as many places as possible for stationing men on guard. Thus the troops of Cyrus employed themselves. (13) But those who were on the walls laughed at this blockade, as being furnished with provisions for more than twenty years. Cyrus, hearing this, divided his army into twelve parts, as if he intended that each part should keep guard one month in the year. (14) When the Babylonians heard this, they laughed yet more than before; reflecting that Phrygians, Lydians, Arabians, and Cappadocians were to keep guard over them, men who were better affected to them than to the Persians. (15) The trenches were now dug; and Cyrus, when he heard that there was a festival in Babylon, in which all the Babylonians drank and revelled the whole night, took, during the time of it, a number of men with him, and as soon as it was dark, opened the trenches on the side towards the river. (16) When this was done, the waters ran off in the night into the trenches, and the bed of the river through the city allowed men to walk along it. (17) When the river was thus prepared, Cyrus gave orders to the Persian captains of thousands, of infantry and cavalry, to attend him, each with his thousand drawn up two abreast, and the rest of the allies to follow in the rear, ranged as they used to be before. (18) They

[1] On that side of the trench which was towards their own camp, not on that side which was towards the city.

accordingly came; and he, causing those that attended his person, both foot and horse, to go down into the dry channel of the river, ordered them to try whether the bed of the river was passable. (19) When they reported that it was passable, he called together the officers both of infantry and cavalry, and spoke to them as follows: (20) "The river, my friends, has yielded us a passage into the city; and let us boldly enter, fearing nothing within, but considering that these people, on whom we are now going to fall, are the same that we defeated when they had allies with them, and were all awake, sober, armed and in order. (21) We shall now fall upon them at a time when many of them are asleep, many intoxicated, and all in confusion; and when they discover that we are in the city, they will, by reason of their consternation, be yet more unfit for service than they are now. (22) But if any one apprehend, (what is said to be terrible to those that enter a city,) lest, mounting to the tops of their houses, they throw down missiles upon us from every side, be quite at ease as to this point; for, if any of them climb upon the houses, we have the god Vulcan to fight on our side; their porches are easily set on fire, their doors are made of the palm-tree, and anointed over with bitumen, a most combustible material. (23) We have torches in abundance, that will presently take fire; we have plenty of pitch and tow, that will soon raise a strong flame; so that the people must, of necessity, flee from their houses at once, or at once be burnt. (24) Come then; take your arms, and with the help of the gods, I will lead you on. You, Gobryas, and Gadatas," added he, "show us the ways; for you are acquainted with them, and, when we are in, conduct us by the readiest approach to the palace." (25) "Indeed," said they that were with Gobryas, "it would not be at all wonderful if the doors of the palace were open, for the whole city seems to-night to be in a revel; but we shall meet with a guard in front of the gates, for there is always one placed there." "We must not then be remiss," said Cyrus, "but march, that we surprise them as little prepared as possible."

(26) As soon as these words were spoken, they went forward; and, of those that met them, some were struck down and killed, some fled and some raised a shout. They that were with Gobryas joined in the shout with them, as if they were revellers themselves, and, marching on the shortest

way that they could, arrived at the palace. (27) Those who attended Gadatas and Gobryas, found the doors of the palace shut; those who were appointed to attack the guards, fell upon them, as they were drinking at a large fire, and dealt with them as with enemies. (28) As a great clamour and noise ensued, those who were within heard the tumult, and as the king ordered them to see what was the matter, some of them threw open the gates and rushed out. (29) Those who were with Gadatas, as soon as they saw the gates unclosed, burst in, and, pursuing those who fled, and dealing blows amongst them, came up to the king, and found him in a standing posture with his sword drawn. (30) The party of Gadatas and Gobryas, being numerous, mastered him; those who were with him were killed, one holding up something before him, another fleeing, and another defending himself in whatever way he could. (31) Cyrus sent troops of horse through the streets, bidding them kill those that were abroad, and ordering some, who understood the Assyrian language, to tell those who were in the houses to remain within, and to say that if any one were found abroad, they would be killed. (32) These directions were obeyed. Gadatas and Gobryas now came up, who first paid their adoration to the gods, because they had taken revenge on their impious king, and then kissed the hands and feet of Cyrus, shedding many tears in the midst of their joy and satisfaction.

(33) When day came, and they that held the towers of the city perceived that the place was taken and the king dead, they gave up the towers. (34) Cyrus immediately took possession of them, and sent commanders, with garrisons, into them. He gave up the dead to their relatives to bury, and ordered heralds to make proclamation, that all the Babylonians should bring out their arms, and gave notice, at the same time, that in whatever house any arms should be found, all the people in it should be put to death. They accordingly brought out their arms, and Cyrus had them deposited in the towers, that they might be ready, if he should ever want to use them.

(35) When these matters had been settled, he first summoned the Magi, and directed them to select the first-fruits of the spoil for the gods, with certain portions of ground for sacred use, as from a city taken by the sword. He next

distributed houses and palaces to those whom he regarded as sharers with him in what had been performed. He made the assignments in the manner that had been determined, the best things to the most deserving; and if any thought that they had less than they merited, he desired them to come and state their case to him. (36) He gave notice to the Babylonians to cultivate their land, to pay their tribute, and to serve those under whom they were placed. The Persians, who shared with him in everything, and such of the allies as chose to remain with him, he ordered to communicate with those whom they took under them as masters.

. . . . .

Book VIII., *Chap.* 3.—(1) But we shall now relate how Cyrus, for the first time, marched in procession out of the palace; for the majesty of this procession seems to me to have been one of those arts that made his government not to be despised. ... . (9) On the morrow, everything was fairly arranged before daylight; there were rows of troops standing on each side of the way, as they stand at this day, wherever the king is to ride forth; and within these rows none but men of high rank are allowed to come; and there were men posted with scourges in their hands, who struck any that made a disturbance. There stood in front, before the gates, four thousand of the guards drawn up four deep; and two thousand on each side of the gates. (10) The cavalry also were in attendance, having alighted from their horses, and with their hands passed through their robes, as they still pass them at this day when the king takes a view of them. The Persians stood on the right hand, and the other allies on the left hand side of the way. The chariots, in the same manner, stood half of them on each side. (11) When the gates of the palace were thrown open, there were first led forth some very beautiful bulls four abreast consecrated to Jupiter, and such of the other gods as the Magi directed; for the Persians think that they ought to consult professional instructors in affairs relating to the gods more than in others. (12) Next to the bulls, there were horses led for a sacrifice to the Sun. After these was led forth a chariot with white horses, with golden yokes on their necks, crowned,[1] and

[1] Crowned with the leaves of the oak or the olive tree, for both were sacred to Jupiter.

sacred to Jupiter; and after this another chariot with white horses crowned like the preceding. After this a third chariot was led forth, its horses adorned with scarlet coverings, and behind it followed men carrying fire [1] upon a large altar. (13) After these Cyrus himself made his appearance in his chariot from the gates, with his tiara upright on his head, and a vest of a purple colour, half mixed with white,[2] and having on his legs loose trousers of a scarlet colour, and a robe wholly purple. He had also a band about his turban; and his relatives had likewise this mark of distinction, and retain it to this day. (14) His hands he kept out of their coverings.[3] With him rode his driver, a tall man, but shorter than himself, whether in reality, or from whatever cause, but Cyrus certainly appeared much the taller. All the people on seeing him, paid adoration, either from some having been before appointed to begin it, or from being struck with the pomp, and thinking that Cyrus appeared exceedingly tall and handsome; but no Persian ever paid Cyrus adoration before. (15) When the chariot of Cyrus advanced, the four thousand guards preceded it, and the two thousand [4] attended on each side of it. The wand-bearers about his person followed on horseback, splendidly equipped, with javelins in their hands, to the number of about three hundred. (16) Next were led the horses kept for Cyrus himself, with bits of gold, covered with striped cloths, in number about two hundred. Next to these marched two thousand spearmen; next to these the first-formed body of horse, ten thousand in number, ranged in a square of a hundred on each side; and Chrysantas had the command of them. (17) Next to these another body of ten thousand Persian horse, ranged in like manner, and of these Hystaspes had the command. Next to these another body of ten thousand, drawn up in the same manner; these Datamas led. Next to these followed another body of cavalry whom Gadatas commanded. (18) After these marched the Median cavalry; after these the Armenian; then the Hyrcanian; then the Caducian; then the Sacian. Behind the cavalry went the chariots, ranged four

[1] The sacred fire, supposed to have fallen from heaven. See Ammianus Marcell. XXIII. 6; Q. Curtius, III. 3, 9.
[2] This mixture of white none else is allowed to wear.
[3] Out of the sleeves of his robe.
[4] Those mentioned in section 9.

abreast; and Artabates, a Persian, had the command of them.

(24) When they came to the sacred enclosures, they sacrificed to Jupiter, and made a holocaust of the bulls; then to the Sun, and made a holocaust of the horses; then sacrificing certain victims to the Earth, they did with them as the Magi directed. Afterwards they sacrificed to the heroes, the guardians of Syria. (25) After this, the country thereabouts being very fine, he marked out a piece of ground of about five stadia, and told them, nation by nation, to put their horses to their speed. He himself rode with the Persians, and had greatly the superiority, for he had given great attention to horsemanship.

(33) Cyrus also put the chariots severally to their speed; and to all the victors he gave oxen and cups, that they might sacrifice and feast. He himself took the ox that was his prize, but his share of the cups he gave to Pheraulas, because he thought that he had arranged the procession from the palace very happily.

(34) This mode of procession, then settled by Cyrus, constitutes to be *the king's procession* to this day, except that the victims are omitted when he is not going to sacrifice. When these ceremonies were at an end, they returned again to the city, and those who had houses assigned to them, quartered in the houses, and they that had not, in companies.

APPENDIX 8

THE GENERAL HISTORY OF POLYBIUS

Translated from the Greek by Mr. HAMPTON

BOOK V., *Chap.* 5. . . . After this success he [Molon] advanced with all his army to Seleucia, and took it in the first assault; for Zeuxis still fled before him, together with Diomedon, the governor of the city. From hence he marched through the country, and subdued without any difficulty all the upper provinces. Having made himself master of Babylon, with the country which extends along the borders of the Red Sea, he came to Susa, and took this city also in the first assault; but failed in his attempt to reduce the citadel, into which Diogenes had thrown himself with a body of forces. Leaving, therefore, one part of his army to invest the place, he returned back again with the rest to Seleucia, upon the Tigris. And having carefully refreshed his troops, and encouraged them to pursue the war, he again took the field, and subdued all the country which lay along the Tigris, and was called Parapotamia, as far as the city Europus, and all Mesopotamia likewise as far as Dura. . . . The king now advanced towards the Euphrates, and, being joined by the forces that were there, he continued his march from thence, and came to Antiochia in Mygdonia about the beginning of the winter. And having rested during forty days till the extreme severity of the cold was passed, he again decamped, and arrived at Liba, and there called together his council, to deliberate on the route by which he should advance against the rebels, who were at this time in the neighbourhood of Babylon, and to consider also by what means the army might most commodiously be furnished with provisions in their march. In this assembly it was urged by Hermias, that they should continue their route along the Tigris; by which means they would be covered not only by that river,

but by the Lycus also, and the Caprus. Zeuxis, to whose view the late lamentable fortune of Epigenes was present, for some time feared to declare his sentiments. But as the measure that was now proposed was sure to be attended with inevitable ruin, he at last ventured to advise, that they should pass the Tigris. He showed, "that in general the route along the river was very rough and difficult, that after having advanced to a considerable distance, and passed a desert also, which was not to be traversed in less than six days' march, they must at last arrive at the place that was called the Royal Camp, that if the enemy should first have gained possession of this post it would be impossible for them to advance beyond it; nor could they, on the other hand, return back again through the desert without the danger of being lost in their retreat, through the want of necessaries; whereas, on the other hand, if the king would now pass the river, it was not to be doubted but that all the Apollonians would seize at once the occasion of his presence, and return again to their duty, since they were joined to Molon not by any affection, but by necessity and fear; that as the country was rich and fertile, the troops might from thence be furnished with provisions in the greatest plenty; that Molon being thus cut off from his return to Media, and deprived of the subsistence likewise, which he had hitherto received from all this province, must of necessity be forced to venture on a battle; or in case he should decline it, that his troops would soon revolt, and run to embrace the party of the king." This opinion was consented to by all. They divided the army, therefore, into three separate bodies; passed the river in three different parts with all their baggage; and came to Dura, which was then besieged by one of the generals of Molon. But the siege was raised, upon their first approach. They then continued their march forwards without delay, and, having on the eighth day passed beyond the Oricus, arrived at Apollonia. When Molon was informed that Antiochus advanced fast towards him, distrusting on the one hand the fidelity of the people of Susiana and of Babylon, who had so lately been constrained to join his party, and dreading also, on the other hand, that his return to Media might soon be cut off, he resolved to lay a bridge across the Tigris, to transport his army over and possess himself, before Antiochus, of those mountains that stood upon the borders

of the Apollonian territory; being persuaded, that with the assistance of his Cyrtian slingers, who were very numerous, he should be able to maintain that post against the king. This design was immediately carried into execution. He passed the river, and continued his march forwards with the greatest haste. But when he had just reached the mountains, his light-armed troops, that were sent before, were met by those of the king, who had also begun his march from Apollonia with all his army. These troops at first engaged together in some slight skirmishes; but as the main bodies now approached, they severally retired, and encamped together with their respective armies, leaving the distance of about forty stadia between the camps.

When night came on, Molon, having considered with himself how difficult and dangerous it was to lead an army of rebels against their sovereign, face to face, and in the clear light of day, resolved to attack Antiochus in the night. He selected, therefore, all the bravest of his troops, and taking a circuit round, designed to choose some eminence, and to fall from thence upon the royal camp. But being informed that ten young soldiers had left him, in the march, and gone to join the king, he was forced to desist from this decision, and to return back again to his own entrenchments, which he entered about break of day, and spread great disorder through all the camp. For the soldiers, being thus suddenly awakened from their sleep, were so terrified by the noise and tumult of his entry, that they began to fly with great precipitation from the camp. Molon employed all his pains to calm their apprehensions, and, as effectually as the time would then permit, quieted the disorder.

As soon as day appeared, the king, having drawn out all his forces, ranged them in order of battle. . . .

Molon drew out likewise all his forces, and ranged them in order of battle, but not without the greatest difficulty; for the tumult and confusion that were raised in the night before had not yet subsided. . . . The two armies now approached each other, and began the combat. The right wing of Molon remained firm to their engagements, and bravely sustained the charge of Zeuxis. But the left no sooner had beheld the presence of the king than they joined themselves immediately to his party. This accident, as it inspired the royal troops with double ardour, struck the rebels with consternation

and despair. Molon, perceiving what had happened, and being already inclosed on every side, representing also to his mind the cruel torments which he must soon be forced to suffer in case that he should fall alive into the powers of the enemy, killed himself with his own hands. The rest of the chiefs likewise, who had joined in the revolt, retired all to their several houses, and embraced a voluntary death. . . . The king plundered the camp of the rebels; and ordered the body of Molon to be exposed upon a cross in the most conspicuous part of Media. This accordingly was done. The body was removed into the district of Callonitis, and was then fixed upon a cross, upon the ascent of the mountain Zagrus. . . .

Book X

EXTRACT THE FOURTH

A description of Ecbatana, the Capital City of Media

Media is the most powerful of all the kingdoms of Asia; whether we consider the extent of the country, or the numbers and goodness of the men, and also of the horses, which are there produced. For these animals are found in it in so great plenty, that almost all the rest of Asia is supplied with them from this province. It is here also that the royal horses are always fed, on account of the excellence of the pasture. The whole borders of the province are covered with Grecian cities; which were built as a check upon the neighbouring barbarians, after the country had been subdued by Alexander. Ecbatana only is not one of these. This city stands on the north side of Media, and commands all that part of Asia which lies along the Moeotis and the Euxine sea. It was even, from the most ancient times, the seat of the royal residence; and seems, in splendour and magnificence, very greatly to have exceeded all other cities. It is built on the declivity of the mountain Orontes; and not inclosed with any walls. But there is a citadel in it, the fortifications of which are of the most wonderful strength: and below the citadel stands the palace of the Persian kings. With respect to other particulars I am in doubt whether I should speak or be entirely silent. To those who love exaggeration, and to strike their readers with something wonderful in their

descriptions, this city would afford ample matter for such digression. But others, who go not without great diffidence into things that exceed the common apprehension, will, for this very reason, be the more perplexed. Thus much, however, I shall say. The palace contained seven stadia in circumference. And the magnificence of the structure in every part was such as must have raised a very high opinion of the wealth and power of those who built it. For though the wood was all of cedar, or of cypress, no part of it was left naked: but the beams, the roofs, and the pillars that supported the porticos, and peristyles were all covered, some with plates of silver, and some of gold. The tiles likewise were all of silver. The greatest part of these riches was carried away by the Macedonians who attended Alexander: and the rest was pillaged in the reigns of Antigonus and Seleucus. At this time, however, when Antiochus arrived, there were still remaining in the temple of Aena some pillars cased with gold, and a large quantity of silver tiles laid together in a heap. There were also some few wedges of gold, and a much greater number of silver. These were now coined into money with the royal stamp, and amounted to the sum of almost four thousand talents.

APPENDIX 9

THE GEOGRAPHY OF STRABO

By H. C. HAMILTON, Esq., and W. FALCONER, M.A.

BOOK II., *Chap.* 1 (26).—*The Tigris and the Euphrates.*—The Tigris and the Euphrates, he (Eratosthenes) says, flow from Armenia southwards; and then, as soon as they pass the mountains of Gordyene, they describe a great circle and enclose a considerable territory, Mesopotamia; and then they turn towards the winter rising of the sun and the south, but more so the Euphrates; and the Euphrates, after becoming ever nearer to the Tigris in the neighbourhood of the Wall of Semiramis and a village called Opis (from which village the Euphrates was distant only about 200 stadia), and after flowing through Babylon empties into the Persian Gulf. "So it comes to pass," he says, "that the shape of Mesopotamia and Babylonia is like that of a galley." Such, then, are the statements that Eratosthenes has made.

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Book XI., *Chap.* 13 (6).—*Media.*—Media is bounded . . . on the south by the Apolloniatis, which the ancients called Sitacene, and by the Zagrus, along which lies Massabatica, which belongs to Media, but according to others, to Elymæa.

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Book XI., *Chap.* 14 (8).—*Armenia.* . . . There are also large lakes in Armenia; one the Montiane, which word translated signifies Cyane, or Blue, . . . the largest salt-water lake it is said, after the Palus Mæotis, extending as far as Atropatia. It has salt-pans for the concretion of salt. The next is Arsene, which is also called Thopitis.[1] Its

[1] The lake Arissa, Thospitis, or Van.

waters contain nitre, and are used for cleaning and fulling clothes. It is unfit by these qualities for drinking. The Tigris passes through this lake [1] after issuing from the mountainous country near the Niphates, and by its rapidity keeps its stream unmixed with the water of the lake, whence it has its name, for the Medes call an arrow, Tigris. This river contains fish of various kinds, but the lake one kind only. At the extremity of the lake the river falls into a deep cavity in the earth. After pursuing a long course underground, it reappears in the Chalonitis; thence it goes to Opis, and to the wall of Semiramis, as it is called, leaving the Gordyæi [2] and the whole of Mesopotamia on the right hand. The Euphrates, on the contrary, has the same country on the left. Having approached one another, and formed Mesopotamia, one traverses Seleucia in its course to the Persian Gulf, the other Babylon, as I have said in replying to Eratosthenes and Hipparchus.

Book XVI., *Chap.* 1 (2).—*Assyria.* . . . When the historians of the Syrian empire say that the Medes were overthrown by the Persians, and the Syrians by the Medes, they mean no other Syrians than those who built the royal palaces at Babylon and Nineveh; and Ninus who built Nineveh in Aturia [3] was one of these Syrians. His wife, who succeeded her husband, and founded Babylon, was Semiramis. These sovereigns were masters of Asia. Many other works of Semiramis, besides those at Babylon, are extant in almost every part of this continent, as, for example, artificial mounds, which are called mounds of Semiramis, and walls and fortresses, with subterraneous passages; cisterns for water; roads to facilitate the ascent of mountains; canals communicating with rivers and lakes; roads and bridges.

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(3) The city Nineveh was destroyed immediately upon the overthrow of the Syrians.[4] It was much larger than

[1] This is an error; one of the branches of the Tigris rises among the mountains on the S.W. of the lake Van, and which form part of the range of Nepat-Læarn or Niphates.

[2] The Kurds.

[3] According to Dion, Cassius XVIII. 26, Aturia is synonymous with Assyria, and only differs from it by a barbarous pronunciation; which shows that the name Assyria belonged peculiarly to the territory of Nineveh.

[4] Assyrians.

Babylon, and situated in the plain of Aturia. Aturia borders upon the places about Arbela. Between these is the river Lycus.[1] Arbela[2] and the parts about it belong to Babylonia. In the country on the other side of the Lycus are the plains of Aturia, which surround Nineveh.

In Aturia is situated Gaugamela, a village where Darius was defeated and lost his kingdom. This place is remarkable for its name, which when interpreted, signifies—the Camel's House. Darius, the son of Hystaspes, gave it this name, and assigned (the revenues of) the place for the maintenance of a camel, which had undergone the greatest possible labour and fatigue in the journey through the deserts of Scythia, when carrying baggage and provision for the king. The Macedonians, observing that this was a mean village, but Arbela a considerable settlement (founded, as it is said, by Arbelus son of Athmoneus), reported that the battle was fought and the victory obtained near Arbela, which account was transmitted to historians.

(4) After Arbela and the mountain Nicatorium[3] (a name which Alexander, after the victory at Arbela, superadded), is the river Caprus[4] situated at the same distance from Arbela as the Lycus. The country is called Artacene.[5] Near Arbela is the city Demetrias; next is the spring of naphtha, the fires, the temple of the goddess Anæa, Sadracæ, the palace of Darius, son of Hystaspes, the Cyparisson, or plantation of Cypresses, and the passage across the Caprus, which is close to Seleucia and Babylon.

(5) Babylon itself is also situated in a plain. The wall is 385[6] stadia in circumference, and 32 feet in thickness.

[1] Called also Zabus, Zabatus, and Zerbes, now the Great Zab.
[2] Erbil.
[3] Probably a branch of the Karadgeh-dagh.
[4] The little Zab, or Or.
[5] As the name Artacene occurs nowhere else, Groskurd, following Cellarius (V. Geogr. Ant. I. 771), suspects that here we ought to read Arbelene, and would understand by it the same district which is called Arbelitis by Ptolemy VI. 1, and by Pliny H.N. VI. 13, 16, but as this form of the national name is nowhere to be found, it would appear improper to introduce it into the text. It is more probable, continues Kramer, that Strabo wrote Adiabene, of which Arbelitis was a part, according to Pliny, *loco citato*.
[6] All manuscripts agree in giving this number, but critics agree also in its being an error for 365. The number of stadia in the wall, according to ancient authors, correspond with the number of days in the year.

The height of the space between the towers is 50, and of the towers 60 cubits. The roadway upon the walls will allow chariots with four horses when they meet to pass each other with ease. Whence, among the seven wonders of the world, are reckoned this wall and the hanging garden: the shape of the garden is a square, and each side of it measures four plethra. It consists of vaulted terraces, raised one above another, and resting upon cube-shaped pillars. These are hollow and filled with earth to allow trees of the largest size to be planted. The pillars, the vaults, and the terraces, are constructed of baked brick and asphalt.

The ascent to the highest story is by stairs, and at their side are water engines, by means of which persons, appointed expressly for the purpose, are continually employed in raising water from the Euphrates into the garden. For the river, which is a stadium in breadth, flows through the middle of the city, and the garden is on the side of the river. The tomb also of Belus is there. At present it is in ruins; having been demolished, it is said, by Xerxes. It was a quadrangular pyramid, of baked brick, a stadium in height, and each of the sides a stadium in length. Alexander intended to repair it. It was a great undertaking; and required a long time for its completion (for ten thousand men were occupied two months in clearing away the mound of earth), so that he was not able to execute what he had attempted, before disease hurried him rapidly to his end. None of the persons who succeeded him attended to this undertaking; other works also were neglected, and the city was dilapidated, partly by the Persians, partly by time, and, through the indifference of the Macedonians to things of this kind, particularly after Seleucus Nicator had fortified Seleucia on the Tigris, near Babylon, at the distance of about 300 stadia.

Both this prince and all his successors directed their care to that city, and transferred to it the seat of empire. At present it is larger than Babylon; the other is in great part deserted, so that no one would hesitate to apply to it what one of the comic writers said of Megalopolitæ in Arcadia,

"The great city is a great desert."

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(7) Borsippa is a city sacred to Diana and Apollo.

Here is a large linen manufactory. Bats of larger size than those in other parts abound in it. They are caught and salted for food.

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(9) The country is intersected by many rivers, the largest of which are the Euphrates and the Tigris. . . . The Tigris is navigable upwards from its mouth to Opis. . . . Opis is a village and a mart for the surrounding places. The Euphrates also is navigable up to Babylon, a distance of more than 3000 stadia. The Persians through fear of incursions from without, and for the purpose of preventing vessels from ascending these rivers, constructed artificial cataracts. Alexander, on arriving there, destroyed as many of them as he could, those particularly [on the Tigris from the sea] to Opis. But he bestowed great care upon the canals; for the Euphrates at the commencement of summer, overflows. It begins to fill in the spring, when the snow in Armenia melts: the ploughed land, therefore, would be covered with water and be submerged, unless the overflow of the superabundant water were diverted by trenches and canals, as in Egypt the water of the Nile is diverted. Hence the origin of canals. Great labour is requisite for their maintenance, for the soil is deep, soft, and yielding, so that it would easily be swept away by the stream, the fields would be laid bare, the canals filled, and the accumulation of mud would soon obstruct their mouths. Then, again, the excess of water discharging itself into the plains near the sea forms lakes, and marshes, and reed-grounds, supplying the reeds with which all kinds of platted vessels are woven; some of these vessels are capable of holding water, when covered over with asphaltus; others are used with the material in its natural state. Sails are also made of reeds; these resemble mats or hurdles.

(10) It is not, perhaps, possible to prevent inundations of this kind altogether, but it is the duty of good princes to afford all possible assistance. The assistance required is to prevent excessive overflow by the construction of dams, and to obviate the filling of rivers, produced by the accumulation of mud, by cleansing the canals, and removing stoppages at their mouths. The cleansing of the canals is easily performed, but the construction of dams requires the labour

of numerous workmen. For the earth being soft and yielding, does not support the superincumbent mass, which sinks, and is itself carried away, and thus a difficulty arises in making dams at the mouth. Expedition is necessary in closing the canals to prevent all the water flowing out. When the canals dry up in the summer time, they cause the river to dry up also; and if the river is low (before the canals are closed), it cannot supply the canals in time with water of which the country, burnt up and scorched, requires a very large quantity; for there is no difference, whether the crops are flooded by an excess or perish by drought and a failure of water. The navigation of the rivers (a source of many advantages) is continually obstructed by both the above-mentioned causes, and it is not possible to remedy this unless the mouths of the canals were quickly opened and quickly closed, and the canals were made to contain and preserve a mean between excess and deficiency of water.

(11) Aristobolus relates that Alexander himself, when he was sailing up the river and directing the course of the boat, inspected the canals, and ordered them to be cleared by his multitude of followers; he likewise stopped up some of the mouths, and opened others. He observed that one of these canals, which took a direction more immediately to the marshes, and to the lakes in front of Arabia, had a mouth very difficult to be dealt with, and which could not be easily closed on account of the soft and yielding nature of the soil; he (therefore) opened a new mouth at a distance of 30 stadia, selecting a place with a rocky bottom, and to this the current was diverted. . . . Thus was Alexander employed in clearing the canals, and in examining minutely the sepulchres of the kings, most of which are situated among the lakes.

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(17) At the distance of 500 stadia from Seleucia is Artemita, a considerable city, situated nearly directly to the east, which is the position also of Sitacene. This extensive and fertile tract of country lies between Babylon and Susiana, so that the whole road, in travelling from Babylon to Susa, passes through Sitacene.

Book II., *Chap.* 1 (24).—It is in this general kind of description of the third section that Eratosthenes supposes

10,000 stadia from the Caspian Gates to the Euphrates. This he again divides according to former admeasurements which he found preserved. Starting from the point where the Euphrates passes near to Thapsacus, he computes from thence to the place where Alexander crossed the Tigris 2400 stadia. The route thence through Gaugamela,[1] the Lycus, Arbela, and Ecbatana, whither Darius fled from Gaugamela to the Caspian Gates, makes up the 10,000 stadia, which is only 300 stadia too much.

[1] Karmelis.

APPENDIX 10

THE HISTORICAL LIBRARY OF DIODORUS THE SICILIAN

(In Fifteen Books)

By G. Booth, of the City of Chester

Book II., *Chap.* 1.—Ninus is the first king of Assyria that is recorded in history; he performed many great and noble actions. . . . Ninus, the Assyrian King, with the Prince of Arabia, his assistant, with a numerous army, invaded the Babylonians, then next bordering upon him, for the Babylon that is now was not built at that time; but the Province of Babylon had in it then many other considerable cities, whose inhabitants he easily subdued. . . . [After conquering many other countries] having marched back with the army into Syria, he marked out a place for the building of a stately city; for inasmuch as he had surpassed all his ancestors in the glory and success of his arms he was resolved to build one of that state and grandeur as should not only be the greatest then in the world, but such as none that ever should come after him should be able easily to exceed.

The King of Arabia he sent back with his army into his own country, with many rich spoils, and noble gifts. And he himself, having got a great number of his forces together and provided money and treasure and other things necessary for the purpose, built a city near the river Euphrates, very famous for its walls and fortifications, of a long form; for on both sides it ran out in length above an hundred and fifty furlongs; but the two lesser angles were only ninety furlongs apiece; so that the circumference of the whole was four hundred and fourscore furlongs. And the founder was not herein deceived, for none ever after built the like, either as to the largeness of its circumference, or the stateliness of its walls. For the wall was an hundred feet in height, and so broad as three chariots might be driven together upon it

abreast. There were fifteen hundred turrets upon the walls, each of them two hundred feet high.

. . . .

When he had finished his work here, he marched with an army against the *Bactrians*, where he married *Semiramis*. . . . *Semiramis* was naturally of a high aspiring spirit, ambitious to excel all her predecessors in glorious actions, and therefore employed all her thoughts about the building of a city in the province of Babylon, and to this end having provided architects, artists, and all other necessaries for the work, she got together two millions of men out of all parts of the empire to be employed in the building of the city. It was so built that the river Euphrates ran through the middle of it, and she compassed it round with a wall of three hundred and sixty furlongs in circuit, and adorned it with many stately turrets; and such was the state and grandeur of the work, that the walls were of that breadth, as that six chariots abreast might be driven together upon them. Their height was such as exceeded all men's belief that heard of it (as Ctesias Cnidius relates). But Clitarchus, and those who afterwards went over with *Alexander* into *Asia* have written that the walls were in circuit three hundred and sixty-five furlongs; the Queen making them of that compass to the end that the furlongs should be as many in number as the days of the year. They were of brick cemented with brimstone, in height, as Ctesias says, fifty orgyas; [1] but as some of the latter writers report, but fifty cubits only, and that the breadth was but a little more than what would allow two chariots to be driven afront. There were two hundred and fifty turrets, in height and thickness proportionable to the largeness of the wall. It is not to be wondered at that there were so few towers upon a wall of so great a circuit, being that in many places round the city there were deep morasses; so that it was to be judged to no purpose to raise turrets there where they were so naturally fortified. Between the wall and the houses there was a space left round the city of two hundred feet.

That the work might be the more easily dispatched, to each of her friends was allotted a furlong with an allowance of all expenses necessary for several parts, and commanded all

[1] An orgya = 6 feet.

should be finished in a year's time; which being diligently perfected with the Queen's approbation, she then made a bridge over the narrowest part of the river, five furlongs in length, laying the supports and pillars of the arches with great art and skill in the bottom of the water twelve feet distant from each other. That the stones might be the more firmly jointed they were bound together with hooks of iron, and the joints filled up with melted lead. And before the pillars she made and placed defences with sharp-pointed angles to receive the water before it beat upon the flat sides of the pillars, which caused the course of the water to run round by degrees gently and moderately as far as to the broad sides of the pillars, so that the sharp points of the angles cut the stream and gave a check to its violence, and the roundness of them by little and little giving way, abated the force of the current. This bridge was floored with great joists and planks of cedar, cypress and palm trees, and was thirty feet in breadth, and for art and curiosity yielded to none of the works of Semiramis. On either side of the river she raised a bank, as broad as the wall, and with great art, drew it out in length an hundred furlongs. She built, likewise, two palaces at each end of the bridge upon the bank of the river, whence she might have a prospect over the whole city, and make her passage as by quays to the most convenient places in it, as she had occasion. And whereas the Euphrates runs through the middle of Babylon, making its course to the south, the palaces lie one on the east, and the other on the west side of the river; both built at exceeding cost and expense. For that on the west had a high and stately wall made of well-burnt bricks sixty furlongs in compass; within this was drawn another of a round circumference upon which were portrayed in the bricks before they were burnt all sorts of living creatures, as if it were to the life, laid with great art in curious colours. This wall was in circuit forty furlongs, three hundred bricks thick, and in height (as Ctesias says) a hundred yards, upon which were turrets a hundred and fifty yards high. The third and most inward wall immediately surrounded the palace, thirty furlongs in compass, and far surmounted the middle wall both in height and thickness; and on this wall and the towers were represented the shapes of all sorts of living creatures, artificially expressed in most lively colours.

Especially was represented a general hunt of all sorts of wild beasts, each four cubits high and upwards; among these was to be seen Semiramis on horseback, striking a leopard through with a dart and next to her her husband Ninus in close fight with a lion, piercing him with his lance. To this palace she built likewise three gates, under which were apartments of brass for entertainments [1]; into which passages were opened by a certain engine. This palace far excelled that on the other side of the river, both in greatness and adornments. For the outmost wall of that (made of well-burnt brick) was but thirty furlongs in compass. Instead of the curious portraiture of beasts, there were the brazen statues of Ninus and Semiramis, the great officers, and of Jupiter, whom the Babylonians call Belus; and likewise armies drawn up in battle array, and divers sorts of huntings were there represented, to the great diversion and pleasure of the beholders. After all these, in a low ground in Babylon she sunk a place for a pond, four-square, every square being three hundred furlongs in length, lined with brick and cemented with brimstone, and the whole five and thirty feet in depth. Into this, having first turned the river, she made a passage in the nature of a vault, from one palace to another, whose arches were built of firm and strong brick and plastered all over on both sides with bitumen four cubits thick. The walls of this vault were twenty bricks in thickness, and twelve feet high, beside and above the arches, and the breadth was fifteen feet. This piece of work being finished in two hundred and sixty days, the river was turned into its ancient channel again, so that the river flowing over the whole work Semiramis could go from one palace to the other, without passing over the river. She made likewise two brazen gates at either end of the vault, which continued to the time of the Persian Empire. In the middle of the city she built a temple to Jupiter, whom the Babylonians call Belus (as we have before said) of which, since writers differ amongst themselves, and the work is now wholly decayed through length of time, there is nothing that can certainly be related about it. Yet it is apparent that it was of exceeding great height, and that by the advantage of it the Chaldæan astrologers exactly observed the setting and rising of the stars. The whole was built of brick, cemented with

[1] Banqueting houses.

brimstone, with great art and cost. Upon the top she placed three statues of beaten gold of Jupiter, Juno, and Rhea. That of Jupiter stood upright in a posture as if he were walking; he was forty feet in height, and weighed a thousand Babylonian talents. The statue of Rhea was of the same weight sitting on a golden throne, having two lions standing on either side, one at her knees, and near to them two exceeding great serpents of silver, weighing thirty talents apiece. Here likewise the statue of Juno stood upright, and weighed eight hundred talents, grasping a serpent by the head in her right hand, and holding a sceptre adorned with precious stones in her left. For all these deities were placed a common table [1] made of beaten gold, forty feet long and fifteen broad, weighing five hundred talents; upon which stood two cups weighing thirty talents, and near to them as many censers weighing three hundred talents. There were there likewise placed three drinking-bowls of gold, one of which, dedicated to Jupiter, weighed twelve hundred Babylonian talents, but the other two six hundred apiece; but all those the Persian Kings sacrilegiously carried away. And length of time has altogether consumed, or much defaced the palaces, and the other structures, so that at this day but a small part of this Babylon is inhabited, and the greater part which lay within the walls is turned into tillage and pasture.

There was likewise a hanging garden (as it is called) near the citadel, not built by Semiramis, but by a later prince called Cyrus, for the sake of a courtesan, who, being a Persian, they say, by birth and coveting meadows on mountain tops, desired the King by an artificial plantation to imitate the land in Persia. This garden was four hundred feet square, and the ascent up to it was as to the top of a mountain, and had buildings and apartments, out of one into another, like unto a theatre. Under the steps to the ascent were built arches, one above another, rising gently by degrees, which supported the whole plantation. The highest arch, upon which the platform of the garden was laid was fifty cubits high, and the garden itself was surrounded with battlements and bulwarks. The walls were made very strong, built at no small charge and expense, being twenty-two feet thick, and every sally-port ten feet wide. Over the

[1] Or altar.

several stories of this fabric were laid beams and summers of huge massy stones, each sixteen feet long and four broad. The roof over all these was first covered with reeds daubed with abundance of brimstone, then upon them was laid double tiles pargetted together and with a hard and durable mortar,[1] and over them after all, was a covering with sheets of lead, that the wet which drenched through the earth might not rot the foundation. Upon all these was laid earth of a convenient depth, sufficient for the growth of the greatest trees. When the soil was laid even and smooth, it was planted with all sorts of trees, which both for greatness and beauty might delight the spectators. The arches (which stood one above another, and by that means darted light sufficient one into another) had in them many stately rooms of all kinds, and for all purposes. But there was one that had in it certain engines, whereby it drew plenty of water out of the river through certain conduits and contrivances from the platform of the garden, and nobody without was the wiser, or knew what was done. This garden (as we said before) was built in later ages. . . . Semiramis likewise caused a great stone to be cut out of the mountains of Armenia an hundred and twenty-five feet in length, and five in breadth and thickness; this she conveyed to the river by the help of many yokes of oxen and asses, and there put it aboard a ship and brought it safe by water to Babylon, and set it up in the most remarkable highway as a wonderful spectacle to all beholders. From its shape it is called an obelisk, and is accounted one of the seven wonders of the world. There are, indeed, many remarkable and wonderful things to be seen in Babylon, but among these the great quantity of brimstone that there flows out of the ground, is not to be last admired, which is so much that it not only supplied all their occasions in building such great and mighty works, but the common people profusely gathered it, and when it is dry burn it instead of fuel, and though it be drawn out by an innumerable company of people as from a fountain, yet it is as plentiful as ever it was before. Near this fountain there is a spring not big but very fierce and violent, for it casts forth a sulphurous and gross vapour, which suddenly kills every living creature that comes near to it. . . .

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[1] Such as we call Plaster of Paris.

Beyond the river there is a morass about which is a crusty earth. If any unacquainted with the place get into it, at first he floats on the top; when he comes into the middle he is violently hauled away, and striving to help himself, seems to be held so fast by something or other, that all his labour to get loose is in vain. And first his feet, then his legs and thighs to his loins are benumbed; at length his whole body is stupefied, and then down he sinks to the bottom and presently after is cast up dead to the surface. And this much for the wonders of Babylon.

APPENDIX 11

THE HISTORY OF THE LIFE AND REIGN OF ALEXANDER THE GREAT

By QUINTUS CURTIUS RUFUS, translated by P. PRATT

BOOK V., *Chaps.* 1, 2. . . . To Alexander was soon afterwards surrendered Arbela, replete with regal furniture and treasures; comprising costly wardrobes and four thousand talents. Here the valuables of the whole army had been deposited.

Alexander suddenly broke up his camp, menaced with contagion, caused by effluvia from the dead bodies lying in all the plains. At the beginning of his march, . . . he kept bearing to the left. His road lay over levels. . . . Alexander, in four days, reached the walled town of Memmium. Near it is a fountain in a cavern which discharges bitumen in great quantities; so that it is probable that the wall of Babylon, a prodigious work, was cemented with this material.

Chap. 3.—As Alexander was proceeding toward Babylon Mazæus, who had fled thither after the battle, came with his adult offspring, and tendered the surrender of himself and the city. His overture was gratifying: the siege of a place so strong were a tedious operation: his rank was illustrious, and his bravery acknowledged, and he had distinguished himself in the recent action: such an example might induce others to submit. Alexander, therefore, courteously received him with his children. He, nevertheless, leading his army in person, formed it into a square, and cautioned it to enter the city in order of battle. On the walls stood a great proportion of the Babylonians, eager to behold their new sovereign. The majority went out to meet him. Among these Bagophanes, governor of the citadel, and keeper of the royal treasure, unwilling that Mazæus should surpass him in attention, he had strewed the road with flowers and

garlands, and had placed on each side silver altars piled with frankincense, and other costly perfumes. Intended presents followed him: droves of cattle and horses; lions, in cages, and female leopards. The procession was continued by *Magi* chanting hymns; and by the Chaldæans—the Chaldæans make known the motions of the planets, and the revolutions which measure time. Then advanced the musicians with lyric instruments, whose office it was to sing the renown of the monarch. The train was closed by the Babylonian cavalry; the high-wrought accoutrements of the men and horses were extravagant rather than magnificent.

Alexander directed the multitude of residents to follow in the rear of his foot. In a car, surrounded by his guards, he entered the city, and then repaired to the palace. On the following day he began to take an account of the heir-loom furniture and of all the treasure of Darius.

Chap. 4.—The beauty and symmetry of the city struck Alexander and all who for the first time beheld it. It was founded by Semiramis, or, as the majority believe, by Belus, whose palace is yet preserved. The wall—of brick—cemented with bitumen—is thirty-two feet broad; chariots careering on it mutually pass in safety. The wall is one hundred feet high; the towers exceed it in altitude ten feet. The ramparts embrace a [quadrangular] line of three hundred and sixty-eight stadia; the work of building, according to tradition, occupied as many days.[1] From the wall, the houses are detached by a space of nearly one hundred feet.[2] Nor is the whole city filled with streets; about ninety square stadia are seats of habitations, which are not in a connected mass; I apprehend, because, by their dispersion, the danger from conflagration was deemed to be diminished. The area is ploughed and sowed, that, in case of a siege, the place may be fed by its own produce. The Euphrates, intersecting the city, is confined by mounds of mighty solidity; attached to the mounds are immense excavations, sunk deep, to receive the impetuous river, which, when it

[1] *Singulorum stadiorum singulis diebus perfectum esse, memoriæ proditum est . . .* CURTIUS. Semiramis, who enlarged it, after Belus the original founder, assigned each furlong of the work, with materials and funds, to a confidential adherent, allowing a year for its completion. See Justin. initio. lib. I. Diod. lib. II.

[2] *Fere spatium unius jugeri.* A JUGUM was 240 feet by 120 feet.

overflows, would sweep down the houses, were it not diverted by subterranean channels into the lakes. These, the greatest works of the engineers, are lined with brick, cemented with bitumen. The two parts of the city communicate by a bridge of stone; which also ranks among the wonders of the East; for the profundity of mud which is borne along the bed of the river, is with difficulty dug out, so as to arrive at ground solid enough for a foundation; and the sand heaps, which repeatedly accumulate around the stone piers on which the bridge rests, makes the obstructed stream dash through more furiously. The citadel is twenty stadia in circumference; the foundations of the towers are received thirty feet into the earth, their elevations rise eighty feet above it.

Chap. 5.—On the summit of the citadel are the hanging gardens, a trite theme with the Greek poets; they equal in height the walls of the town, and their numerous lofty trees afford a grateful shade. The trees are twelve feet in circumference, and fifty feet in height; nor in their native soil, could they be more productive. Supporting these, are twenty dense walls, distant from each other eleven feet, surmounted with ranges of stone piers, over which is extended a quadrangular pavement of stone, strong enough to bear earth amassed high, and water supplied for irrigation. A distant spectator of these groves would suppose them to be woods nodding on their mountains. Notwithstanding time destroys, by insensible corrosion, not only human works, but even nature herself; yet this pile, pressed with the roots, and loaded with the trunks of so gigantic a plantation, still remains entire. Tradition affirms, that a king of Assyria,[1] reigning in Babylon, executed this work to gratify his queen, who, delighting in forest scenery, persuaded her husband to imitate the beauties of nature by a garden on this imperial scale.

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Book X., *Chap.* 4. . . . The king repeatedly visited several cities of the central provinces. Moving from Susa across the Tigris, he encamped successively at Sittace, at Carrhæ, at Sambana, and at Celonæ. This town was

[1] Nebuchadnezzar. Josephus lib. X. chap. 2. "Is not this great Babylon that I have built?" Dan. iv. 30. He reconstructed the decayed buildings, and embellished it with new.

inhabited by a colony of emigrants from Bæotia, which Xerxes had conveyed thither. They preserved the evidence of their origin in their dialect, composed for the most part of Græcian words; although from the necessity of intercourse, they used the language of the neighbouring Barbarians. Thence he entered Bagistames, a country of pleasant orchards; in the simple aliments essential to life, and in delicacies flattering the palate, equally abounding.

The army proceeded to the plains of Media, where lordly herds of horses were grazing, of distinguished size and beauty, denominated nisoei. In this region of pasture Alexander obtained fifty thousand steeds. Their number formerly was thrice as many; but, during the convulsions of war, marauders had carried off the greater part. To the king, who remained here thirty days, Atropates, satrap of Media, conducted a hundred female Barbarians, expert equestrians, armed with half-moon shields, and battle-axes; whom some have believed to be the remains of a nation of Amazons.

In seven days, Alexander reached Ecbatana, the capital of the province. Here he solemnised sacrifices to the gods, proclaimed musical and gymnastic games, and, to recreate his mind for new cares and operations, resolved to unbend the time in festivity.

APPENDIX 12

HISTORY OF THE JEWS

By FLAVIUS JOSEPHUS (Antiquitates Judaicæ)

BOOK X., *Chap.* 11. . . . Nabopolassar fell ill, and ended his life in the city of Babylon, when he had reigned 21 years; and when he [Nebuchadnezzar] was made sensible, as he was in a little time, that his father Nabopolassar was dead, he . . . came to Babylon. . . . He adorned the temple of Belus, and the rest of the temples, in a magnificent manner, with the spoils he had taken in the war. He added another city to that which was there of old, and rebuilt it, that such as would besiege it hereafter might no more turn the course of the river, and thereby attack the city itself; he therefore built three walls round about the inner city, and three others about that which was the outer, and this he did with burnt brick. After he had, after a becoming manner, walled the city, and adorned its gates gloriously, he built another palace before his father's palace, but so that they joined to it; to describe the vast height and immense riches of which, it would perhaps be too much for me to attempt; yet, as large and lofty as they were, they were completed in fifteen days. He erected elevated places for walking of stone, made it resemble mountains, and built it so that it might be planted with all sorts of trees. He erected what was called a pensile paradise, because his wife was desirous to have things like her own country, she having been bred up in the palaces of Media.

APPENDIX 13

THE NATURAL HISTORY OF PLINY

Translated by JOHN BOSTOCK, M.D., F.R.S., and H. T. RILEY, B.A.

BOOK II., *Chap.* 110.—*Places which are always Burning.* . . . In this same country of Lycia, the mountains of Hephæstius, when touched with a flaming torch, burn so violently, that even the stones in the river and the sand burn, while actually in the water; this fire is also increased by rain. If a person makes furrows in the ground with a stick that has been kindled at this fire, it is said that a stream of flame will follow it. The summit of Cophantus in Bactria burns during the night; and this is the case in Media and at Sittacene, on the borders of Persia. . . . The plain of Babylon throws up flame from a place like a fish-pond, an acre in extent.

Book V., *Chap.* 20 (24).—*The Euphrates.* . . . At its passage between the mountains, the river bears the name of Omma; but afterwards, when it has passed through, it receives that of Euphrates. Beyond this spot it is full of rocks, and runs with an impetuous tide. It then divides that part of Arabia which is called the country of the Orei on the left, by a channel three schoeni in width, from the territory of the Commageni on the right, and it admits of a bridge being thrown across it, even where it forces a passage through the range of Taurus. . . . After passing the cataracts the river again becomes navigable, and at a distance of 40 miles from thence is Samosata,[1] the capital of Commagene.

Chap. 21.—*Syria upon the Euphrates.*—Arabia, above

[1] Now called Someisat. . . . Nothing remains of it but a heap of ruins on an artificial mound.

mentioned, has the cities of Edessa,[1] formerly called Antiochia, and from the name of its fountain, Callirhoë; and Carrhaë [2] memorable for the defeat of Crassus there. Adjoining to this is the prefecture of Mesopotamia, which derives its name from the Assyrians, and in which are the towns of Anthemusia,[3] and Nicephorium,[4] after which came the Arabians, known by the name of Prætavi, with Singara [5] for their capital. Below Samosata, on the side of Syria, the river Marsyas flows into the Euphrates. At Cingilla ends the territory of Commagene, and the state of Immei begins. The cities which are here washed by the river are those of Epiphania and Antiochia, generally known as Epiphania and Antiochia on the Euphrates; also Zeugma, seventy-two miles distant from Samasota, famous for the passage there across the Euphrates. Opposite to it is Apamea,[6] which Seleucus, the founder of both cities, united by a bridge. The people who join up to Mesopotamia are called the Rhoali. Other towns in Syria are those of Europus,[7] and what was formerly Thapsacus,[8] now Amphipolis.

Book V., *Chap.* 21.—(26) . . . At a distance of 594 miles beyond Zeugma, near the village of Massice, the Euphrates divides into two channels, the left one of which runs through Mesopotamia, past Seleucia, and falls into the

[1] In the district of Osrhoëne, in the northern part of Mesopotamia. It was situate on the Syrtus, now the Daisan, a small tributary of the Euphrates. . . . The modern town of Orfahor Uufah is supposed to represent its site.

[2] Supposed to be the Haran, or Charan, of the Old Testament. It was situate in Osroëne, in Mesopotamia, and not far from Edessa. According to Stephanus, it had its name from Carrha, a river of Syria, and was celebrated in ancient times for its temple of Luna, or Lunus.

[3] According to Strabo, the Aboras, now the Khabur, flowed round the town. By Tacitus it is called Anthemusias. According to Isidorus of Charax, it lay between Edessa and the Euphrates.

[4] Now Rakkah, a fortified town of Mesopotamia, on the Euphrates near the mouth of the river Bilecha. It was built by order of Alexander the Great, and completed probably by Seleucus. It is supposed to have been the same place as Callinicum, the fortifications of which were repaired by Justinian. Its name was changed in later times to Leontopolis by the Emperor Leo.

[5] Now called Sinjar.

[6] Now called Roum-cala, or the "Roman Castle."

[7] Colonel Rawlinson has identified it with the present Veramin, at no great distance from the ancient Rhages.

[8] Its ruins are to be seen at the ford of El Hamman, near the modern Rakkah. It stood on the banks of the Euphrates, and was here the usual, and for a long time the only ford of the Euphrates.

Tigris as it flows around that city. Its channel on the right runs towards Babylon, the former capital of Chaldæa, and flows through the middle of it; and then through another city, the name of which is Otris, after which it becomes lost in the marshes.

Book VI., *Chap.* 9 (9).—*The Lesser and the Greater Armenia.*—Greater Armenia, beginning at the mountains known as the Paryadres, is separated as we have already stated, from Cappadocia by the river Euphrates, and, where that river turns off in its course from Mesopotamia, by the no less famous river Tigris. Both these rivers take their rise in Armenia, which also forms the commencement of Mesopotamia, a tract of country which lies between these streams; the intervening space between them being occupied by the Arabian Orei. It thus extends its frontier as far as Adiabene, at which point it is stopped short by a chain of mountains which takes a cross direction; whereupon the province extends in width to the left, crossing the course of the Araxes,[1] as far as the river Cyrus[2]; while in length it reaches as far as the Lesser Armenia, from which it is separated by the river Absarus, which flows into the Euxine, and by the mountains known as the Paryadres, in which the Absarus takes its rise.

Chap. 10. . . . The more famous towns in Lesser Armenia are Cæsarea,[3] Aza,[4] and Nicopolis[5]; in Greater Arsamasota,[6] which lies near the Euphrates, Carcathiocerta[7]

[1] The modern Eraskh or Aras.

[2] The modern Kur.

[3] Hardouin thinks that this is Neo-Cæsarea, mentioned as having been built on the banks of the Euphrates.

[4] Now called Ezaz according to D'Anville. Parisot suggests that it ought to be Gaza, or Gazæa, probably a colony of Median Gaza, now Tauris.

[5] Originally called Tephrice. It stood on the river Lycus, and not far from the sources of the Halys, having been founded by Pompey, where he gained his first victory over Mithridates, whence its name the "City of Victory." The modern Enderez or Devrigni probably marks its site.

[6] Ritter places it in Sophene, the modern Kharpat, and considers that it may be represented by the modern Sert, the Tigranocerta of D'Anville.

[7] The capital of Sophene, one of the districts of Armenia. St. Martin thinks that this was the ancient heathen name of the city of Martyropolis, but Ritter shows that such cannot be the case. It was called by the Syrians Kortbest; its present name is Kharput.

upon the Tigris, Tigranocerta,[1] which stands on an elevated site; and, on a plain adjoining the river Araxes, Artaxata.[2] . . . On the east it is bounded, though not immediately, by the Ceraunian Mountains and the district of Adiabene. The space that intervenes is occupied by the Sopheni, beyond whom is the chain of the mountains,[3] and then beyond them the inhabitants of Adiabene. The Tigris and inaccessible mountains surround Adiabene. To the left of it is the territory of the Medi, and in the distance is seen the Caspian Sea.

Chap. 12 (11).—*The Passes of the Caucasus.*—After passing the last [peoples, Sodii] we come to the Gates of Caucasus,[4] by many persons most erroneously called the Caspian Passes; a vast work of nature, which has suddenly wrenched asunder in this place a chain of mountains. At this spot are gates barred up with beams shod with iron, while beneath the middle there runs a stream which emits a most fetid odour; on this side of it is a rock, defended by a fortress, the name of which is Cumania,[5] erected for the purpose of preventing the passage of the innumerable tribes that lie beyond. Here, then, we may see the habitable world severed into two parts by a pair of gates; they are just opposite to Harmastis, a town of the Iberi.

Chap. 16.—*Adiabene.*—The kingdom of the Persians, by which we now understand that of Parthia, is elevated upon the Caucasian chain between two seas, the Persian and

[1] Generally supposed, by D'Anville and other modern geographers, to be represented by the modern Sert, the Tigranocerta of D'Anville.

[2] The ancient capital of Armenia. Hannibal, who took refuge at the court of Artaxias when Antiochus was no longer able to afford him protection, superintended the building of it. Some ruins, called Takt Tiridate, or Throne of Tiridates, near the junction of the Aras and the Zengue, were formerly supposed to represent Artaxata, but Colonel Monteith has fixed the site at a bend in the river lower down, at the bottom of which were the ruins of a bridge of Greek or Roman architecture.

[3] The Ceraunian Mountains.

[4] There are two chief passes over the chain of the Caucasus, both of which were known to the ancients. The first is between the eastern extremity of its north-eastern spur and the Caspian Sea, near the modern Derbend. This was called "Albaniæ," and sometimes "Caspiæ Pylæ," the "Albanian" or "Caspian Gates." The other, which was nearly in the centre of the Caspian range, was called "Caucasiæ" or "Sarmaticæ Pylæ," being the same as the modern pass of Dariyel, and probably the one here referred to.

[5] Probably the same as the present fortress of Dariyel.

the Hyrcanian. To the Greater Armenia, which in the front slopes towards Commagene, is joined Sophene, which lies upon the descent on both sides thereof, and next to it is Adiabene, a part of which is Arbelitis,[1] where Alexander conquered Darius, and which joins up to Syria. The whole of this country was called Mygdonia by the Macedonians, on account of the resemblance it bore to Mygdonia[2] in Europe. Its cities are Alexandria,[3] and Antiochia,[4] also called Nisibis; this last place is distant from Artaxata seven hundred and fifty miles. There was also in the former times Ninus,[5] a most renowned city on the banks of the Tigris, with an aspect towards the west. . . .

Chap. 17.—(14) Joining up to Adiabene are the people formerly known as the "Carduchi," now the Cordueni.[6]

Chap. 29.—*The Parthian Empire.*—(26) It is requisite in this place to trace the localities of the Medi also, and to describe in succession the features of the country as far as the Persian Sea, in order that the account which follows may be better understood. Media lies crosswise to the west, and so presenting itself obliquely to Parthia, closes the entrance of both kingdoms[7] into which it is divided. It has, then, on the east, the Caspii and the Parthi; on the south, Sittacene, Susiane, and Persis; on the west, Adiabene; and on the north, Armenia. . . . It has also at its extreme frontier, Laodicea, founded by Antiochus. To the east of this place is the fortress of Passagarda, held by the Magi, at which spot is the tomb of Cyrus; also Ecbatana, a city of

[1] He alludes to the town of Arbela, where, as it is generally said, the army of Darius was defeated by Alexander the Great; by which engagement the conflict was terminated. It was the fact, however, that Darius left his baggage and treasure at Arbela, while the battle really took place near the village of Gaugamela, about twenty miles to the north-west of Arbela. This place still retains its name of Arbil.

[2] A district in the east of Macedonia.

[3] Nothing is known of this place. Hardouin suggests that it may have been built on the spot where Alexander defeated Darius.

[4] Also known as Antiochia Mygdoniæ, the capital of Mygdonia. Its ruins are still to be seen near a place called Nisibin. It stood on the river Mygdonius, now the Nahral Huali.

[5] Or Nineveh.

[6] The present Kurds, inhabiting Kurdistan, are supposed to be descended from them.

[7] The Upper and the Lower, as already mentioned.

theirs, the inhabitants of which were removed by Darius to the mountains.

. . . . .

Chap. 30.—*Mesopotamia.*—The whole of Mesopotamia formerly belonged to the Assyrians, being covered with nothing but villages, with the exception of Babylonia and Ninus. The Macedonians formed these communities into cities, being prompted thereto by the extraordinary fertility of the soil. Besides the cities already mentioned it contains those of Seleucia, Laodicea, Artemita; and in Arabia, the peoples known as the Orei and the Mardani, besides Antiochia, founded by Nicanor the Governor of Mesopotamia, and called Arabis. Joining up to these in the interior is an Arabian people, called the Eldamani, and above them upon the river Pallaconta, the town of Bura, and the Arabian peoples known as Salmani, and the Masei. Up to the Gordyæi join the Aloni, through whose territory runs the river Zerbis, which falls into the Tigris; next are the Azones, the Silici, a mountain tribe, and the Orontes, to the west of whom lies the town of Gaugamela, as also Suë, situate upon the rocks. Beyond these are the Silici, surnamed Classitæ, through whose district runs the river Lycus on its passage from Armenia, the Absithris running south-east, the town of Accobis, and then in the plains the towns of Diospage, Polytelia, Stratonice, and Anthermis. In the vicinity of the Euphrates is Nicephorion, of which we have already stated that Alexander, struck with the favourable situation of the spot, ordered it to be built. We have also similarly made mention of Apamea on the Zeugma. Leaving that city and going eastward, we come to Caphrena, a fortified town, formerly seventy stadia in extent, and called the "Court of the Satraps." It was to this place that the tribute was conveyed; now it is reduced to a mere fortress. Thæbata is still in the same state as formerly; after which comes Oruros, which under Pompeius Magnus formed the extreme limit of the Roman Empire, distant from Zeugma two hundred and fifty miles. There are writers who say that the Euphrates was drawn off by an artificial channel by the governor Gobares, at the point where we have stated that it branches off, in order that it might not commit damage in the city of Babylonia, in consequence of the

extreme rapidity of its course. The Assyrians universally call this river by the name of Narmalcha, which signifies the "royal river." At the point where its waters divide, there was in former times a very large city, called Agranis, which the Persæ have destroyed.

Babylon, the capital of the nations of Chaldæa, long enjoyed the greatest celebrity of all cities throughout the whole world; and it is from this place that the remaining parts of Mesopotamia and Assyria received the name of Babylonia. The circuit of its walls, which were two hundred feet in height, was sixty miles. These walls were also fifty feet in breadth, reckoning to every foot three fingers' breadth beyond the ordinary measure of our foot. The river Euphrates flowed through the city, with quays of marvellous workmanship erected on either side. The temple there of Jupiter Belus is still in existence; he was the first inventor of the science of Astronomy. In all other respects it has been reduced to a desert, having been drained of its population in consequence of its vicinity to Seleucia, founded for that purpose by Nicator, at a distance of ninety miles, on the confluence of the Tigris and the canal that leads from the Euphrates. Seleucia, however, still bears the surname of Babylonia; it is a free and independent city, and retains the features of the Macedonian manners. It is said that the population of this city amounts to six hundred thousand, and that the outline of its walls, resembles an eagle with expanded wings; its territory, they say, is the most fertile in all the East. The Parthi again in its turn, founded Ctesiphon, for the purpose of drawing away the population of Seleucia, at a distance of nearly three miles, and in the district of Chalonitis; Ctesiphon is now the capital of all the Parthian kingdoms. Finding, however, that this city did not answer the intended purpose, king Vologesus has of late years founded another city in its vicinity, Vologesocerta by name. Besides the above there are still the following towns in Mesopotamia: Hipparenum, rendered famous, like Babylon, by the learning of the Chaldei, and situate near the river Narraga, which falls into the Narroga, from which a city so called has taken its name. The Persæ destroyed the walls of Hipparenum. Orchenus also, a third place of learning of the Chaldæi, is situate in the same district towards the south; after which come the Notitæ,

the Orothopanitæ, and the Grecichartæ.[1] From Nearchus and Omesicritus we learn that the distance by water from the Persian Sea to Babylon, up the Euphrates, is four hundred and twelve miles; other authors, however, who have written since their time, say that the distance to Seleucia is four hundred and forty miles; and Juba says that the distance from Babylon to Charax is one hundred and seventy-five. Some writers state that the Euphrates continues to flow with an undivided channel for a distance of eighty-seven miles beyond Babylon, before its waters are diverted from their channel for the purpose of irrigation, and that the whole length of its course is not less than twelve hundred miles. The circumstance that so many different authors have treated of this subject, accounts for all these variations, seeing that even the Persian writers themselves do not agree as to what is the length of their *schœni* and *parasangæ*, each assigning to them a different length.

When the Euphrates ceases, by running in its channel, to afford protection to those who dwell on its banks, which it does when it approaches the confines of Charax, the country is immediately infested by the Attali, a predatory people of Arabia, beyond whom are found the Scenitæ. The banks along this river are occupied by the Nomades of Arabia, as far as the deserts of Syria, from which we have already stated, it takes a turn to the south, and leaves the solitary deserts of Palmyra. Seleucia is distant, by way of the Euphrates, from the beginning of Mesopotamia, eleven hundred and twenty-five; from the Red Sea, by way of the Tigris, two hundred and twenty; and from Zeugma, seven hundred and twenty-three miles. Zeugma is distant from Seleucia in Syria, on the shores of our sea, one hundred and seventy-five miles. Such is the extent of the land that lies in these parts between the two[2] seas. The length of the kingdom of Parthia is nine hundred and eighteen miles.

Chap. 31.—*The Tigris.*—There is, besides the above, another town in Mesopotamia, on the banks of the Tigris and near its confluence with the Euphrates, the name of

[1] There is great doubt as to the correct spelling of these names.

[2] The Mediterranean and the Red Sea; the latter including the modern Red Sea and the Persian Gulf.

which is Digba.[1] But it will be as well now to give some particulars respecting the Tigris itself. This river rises in the region of Greater Armenia, from a very remarkable source, situate on a plain. The name of the spot is Elegosine, and the stream as soon as it begins to flow, though with a slow current, has the name of Diglito.[2] When its course becomes more rapid, it assumes the name of Tigris, given to it on account of its swiftness, that word signifying an arrow in the Median language. It then flows into Lake Arethusa, the waters of which are able to support all weighty substances thrown into them, and exhale nitrous vapours. This lake produces only one kind of fish which, however, never enter the current of the river in its passage through the lake; and in a similar manner, the fish of the Tigris will never swim out of its stream into the waters of the lake. Distinguishable from the lake, both by the rapidity and colour of its waters, the tide of the river is hurried along; after it has passed through and arrived at Mount Taurus, it disappears in a cavern of that mountain, and passing beneath it bursts forth on the other side; the spot bears the name of Zoroande. That the waters on either side of the mountain are the same, is evident from the fact that bodies thrown in one side will reappear on the other. It then passes through another lake, called Thospites, and once more burying itself in the earth, reappears, after running a distance of 22 miles, in the vicinity of Nymphæum. . . . The Tigris, after flowing through Armenia and receiving the well-known rivers Parthenias and Nicephorion, separates the Arabian Orei from the Adiabeni, and then forms by its course, as previously mentioned, the country of Mesopotamia. After traversing the mountains of Gordyæi, it passes round Apamea, a town of Mesene, one hundred and twenty-five miles on this side of Babylonian Seleucia, and then divides into two channels, one of which runs southward, and flowing through Mesene, runs towards Seleucia, while the other takes a turn to the north and passes through the plains of Cauchæ, at the back

[1] Forbiger is of opinion that this is the same as the Didigua or Didugua of Ptolemy. It was situate below Apamea. D'Anville takes it to be the modern Corna.

[2] Called Digleth by Josephus. Hardouin states that in his time the name given to the river by the natives was Daghela. This name is also supposed to be another form of the Hiddekel of Scripture. See Genesis ii. 14.

of the district of Mesene. When the waters have reunited, the river assumes the name of Pasitigris. After this, it receives the Choaspes, which comes from Media, and then, as we have already stated, flowing between Seleucia and Ctesiphon, discharges itself into the Chaldæan Lakes, which it supplies for a distance of seventy miles. Escaping from them by a vast channel, it passes the city of Charax to the right, and empties itself into the Persian Sea, being ten miles in width at the mouth. Between the mouths of the two rivers Tigris and the Euphrates, the distance was formerly twenty-five, or, according to some writers, seven miles only, both of them being navigable to the sea. But the Orcheni and others who dwell on its banks, have long since dammed up the waters of the Euphrates for the purposes of irrigation, and it can only discharge itself into the sea by the aid of the Tigris.

The country on the banks of the Tigris is called Parapotamia [1]; we have already made mention of Mesene, one of its districts. Dabithæ is a town there, adjoining to which is the district of Chalonitis, with the city of Ctesiphon, famous not only for its palm-groves, but for its olives, fruits, and other shrubs. Mount Zagrus reaches as far as this district, and extends from Armenia between the Medi and the Adiabeni, above Parætacene and Persis. Chalonitis is distant from Persis three hundred and eighty miles; some writers say that by the shortest route it is the same distance from Assyria and the Caspian Sea.

Between these peoples and Mesene is Sittacene, which is also called Arbelitis and Palæstine. Its city of Sittace is of Greek origin; this and Sabdata lie to the east, and on the west is Antiochia, between the two rivers Tigris and Tornadotus, as also Apamea, to which Antiochus gave this name, being that of his mother. The Tigris surrounds this city, which is also traversed by the waters of the Archoüs.

Below this district is Susiane, in which is the city of Susa, the ancient residence of the kings of Persia, built by Darius, the son of Hystaspes; it is distant from Seleucia Babylonia four hundred and fifty miles, and the same from Ecbatana of the Medi, by way of Mount Carbantus. Upon the northern channel of the river Tigris is the town of Babytace, distant from Susa one hundred and thirty-five

[1] Or the country "by the river."

miles. Here, for the only place in all the world, is gold held in abhorrence; the people collect it together and bury it in the earth, that it may be of use to no one.[1] . . . Susa is distant two hundred and fifty miles from the Persian Sea. Near the spot where the fleet of Alexander came up the Pasitigris to Susa, there is a village situate on the Chaldæan Lake, Aple by name, from which to Susa is a distance of sixty miles and a half. . . . Susiane is separated from Elymais by the river Eulæus, which rises in Media, and, after concealing itself in the earth for a short distance, rises again and flows through Mesabatene. It then flows round the citadel of Susa and the temple of Diana, which is held in the highest veneration by all the nations; the river itself being the object of many pompous ceremonials; the kings, indeed, will drink of no other water,[2] and for that reason carry it with them on their journeys to any considerable distance. The river receives the waters of the Hedypnos,[3] which passes Asylus in Persia, and those of Aduna, which rises in Susiane. Magoa[4] is a town situate near it, and distant from Charax fifteen miles; some writers place this town at the very extremity of Susiane, and close to its deserts.

Below the Eulæus is Elymais,[5] upon the coast adjoining to Persis, and extending from the river Orates[6] to Charax, a distance of two hundred and forty miles. . . . Charax is a city situate at the furthest extremity of the Arabian Gulf, at which begins the more prominent portion of Arabia Felix[7]; it is built on an artificial elevation having the Tigris on the right, and the Eulæus on the left, and lies on a piece of ground three miles in extent, just between the confluence of these streams. It was first founded by Alexander the Great, with colonists from the royal city of Durine, which was then destroyed, and such of his soldiers as were invalided and left behind. By his order it was to be called Alexandria, and a borough called Pella, from his native place, was to be

[1] The buryer excepted perhaps.
[2] Pliny says this in Bk. XXXI., ch. 21, of both the Eulæus and the Choaspes.
[3] Most probably the Hedyphon of Strabo, supposed to be the same as that now called the Djerrabi.
[4] Parisot thinks that this is the modern Jessed, in the vicinity of the desert of Bealbanet.
[5] Ancient Elam.
[6] The modern Tab.
[7] Called Eudemon by Pliny.

peopled solely by Macedonians; the city, however, was destroyed by inundations of the rivers. Antiochus,[1] the fifth king of Syria, afterwards rebuilt this place and called it by his own name; and on its being again destroyed, Pasines, the son of Saggonadacus, and king of the neighbouring Arabians, whom Juba has incorrectly described as a satrap of king Antiochus, restored it, and raised embankments for its protection, calling it after himself. These embankments extended in length a distance of nearly three miles, in breadth a little less. It stood at first at a distance of ten stadia from the shore, and even had a harbour of its own. But according to Juba, it is fifty miles from the sea; and at the present day, the ambassadors from Arabia, and our own merchants who have visited the place, say that it stands at a distance of one hundred and twenty miles from the seashore. Indeed, in no part of the world have alluvial deposits been formed more rapidly by the rivers, and to a greater extent than here; and it is only a matter of surprise that the tides, which run to a considerable distance beyond this city, do not carry them back again.

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Chap. 32 (28).—*Arabia.*—We have already mentioned its peoples, which extend from our sea as far as the deserts of Palmyrene, and we shall now proceed to a description of the remainder. The Scenitæ, as we have already stated, border upon the Nomades and the tribes that ravage the territories of Chaldea, being themselves of wandering habits, and receiving their name from the tents which constitute their dwellings; these are made of goats' hair, and they pitch them wherever they please. Next after them are the Nabatei, who have a city called Petra, which lies in a deep valley somewhat less than two miles in width, and surrounded by inaccessible mountains, between which a river flows; it is distant from the city of Gaza, on our shores, six hundred miles, and from the Persian Gulf one hundred and thirty-five. At this place two roads meet, the one leading from Syria to Palmyra, and the other from Gaza. On leaving Petra we come to the Omani, who dwell as far as Charax, with their once famous cities which were built by Semiramis, Bessanisa, and Soractia by name; at the

[1] The Great, the father of Antiochus Epiphanes.

present day they are wildernesses. We next come to a city situate on the banks of the Pasitigris, Fora by name, and subject to the king of Charax; to this place people resort on their road from Petra, and sail thence to Charax, twelve miles distant, with the tide. If you are proceeding by water from the Parthian territories, you come to a village known as Teredon; and below the confluence of the Euphrates and Tigris, you have the Chaldæi dwelling on the left side of the river, and the nomadic tribes of the Scenitæ on the right. Some writers also make mention of two other cities situate at long intervals, as you sail along the Tigris, Barbatia, and then Thumata, distant from Petra, they say, ten days' sail; our merchants report that these places are subject to the king of Charax. The same writers also state that Apamea is situate where the overflow of the Euphrates unites with the Tigris, and that when the Parthians meditate an incursion, the inhabitants dam up the river by embankments, and so inundate their country.

APPENDIX 14

ARRIAN'S HISTORY OF THE EXPEDITION OF ALEXANDER THE GREAT AND CONQUEST OF PERSIA

Translated from the Original Greek by Mr. Rooke

Book III., *Chap.* 8. . . . With these forces Darius encamped at Gaugamela, upon the banks of the river Bumadus, about 600 stadia distant from Arbela, in a country everywhere open and champaign; for whatever inequality was in the surface of the earth thereabouts, and whatever it was deemed could be any impediment to the armed chariots, was all entirely levelled by the Persians, and made commodious for them to wheel round upon; for Darius was persuaded, by some of his followers, that the defeat at Issus, was chiefly occasioned by the narrowness of the place of encampment; and this he easily believed.

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Chap. 16.—Darius, immediately after this battle, fled through the mountainous tract of Armenia, into Media.

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Book VII., *Chap.* 7.—Then he [Alexander] committed the best part of his foot forces to Hephæstion's care, to conduct them to the Persian Gulph; while he, going on board his fleet, which lay ready at Susa, with his targeteers, and Agema, and some part of his auxiliary horse, sailed down the river Eulæus to the sea. And when he was now not far from the mouth thereof, leaving there those ships which were shattered, and out of order, he, with the best of them, sailed out to the ocean, and then entered the mouth of the river Tigris, the rest of the fleet passing through a canal, drawn from thence to the Tigris. . . . Alexander first sailed down the river Eulæus to the sea, and thence along the Persian Gulph, and up the Tigris to his camp,

where Hephæstion, with the forces under his command, waited his arrival. Thence, steering his course to Opis, a city on that river, he commanded all the wears, and other impediments which he met with, to be pulled up, and the channel to be cleared. These wears were put down by the Persians, who were unskilled in Maratime affairs, to render the navigation of that river so difficult, as to hinder any enemy's fleet from invading them that way. However, Alexander looked upon them as the contrivance of cowards, and, as they were little hindrance to him, knowing they would be of no use, he ordered them to be entirely cleared away, and the river laid open.

APPENDIX 15

THE ROMAN HISTORY OF AMMIANUS MARCELLINUS

Translated by C. D. YONGE, B.A.

BOOK XXIII., *Chap.* 5.—(1) Having received the reinforcements of the Saracens, which they so cheerfully offered, the Emperor advanced with speed, and at the beginning of April entered Circesium, a very secure fortress, and skilfully built; it is surrounded by the two rivers Aboras (or Chaboras) and Euphrates, which makes it as it were an island.

. . . . .

(4) But Julian, while remaining at Circesium to give time for his army and all its followers to cross the bridge of boats over the Aboras, received letters with bad news from Sallust, the prefect of Gaul, entreating him to suspend his expedition against the Parthians.

. . . . .

(7) Leaving Circesium, we came to Zaitha, the name of the place meaning an olive tree. Here we saw the tomb of the emperor Gordian, which is visible a long way off . . . and when in accordance with his innate piety he had offered due honours to this deified emperor, and was on his way to Dura, a town now deserted, he stood without moving on beholding a large body of soldiers.

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(15) The bridge, then, as has been narrated, having been finished, and all the troops having crossed it, the Emperor thought it the most important of all things to address his soldiers.

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Book XXIII., *Chap.* 6.—(15) Superior to all the rest [of the principal districts of Persia] is that which is nearest to

us, Assyria, both in renown and extent, and its varied riches and fertility. It was formerly divided among several peoples and tribes, but is now known under one common name as Assyria. It is in that country that amid its abundance of fruits and ordinary crops, there is a lake named Sosingites, near which bitumen is found. In this lake the Tigris is absorbed for a while, flowing beneath its bed, till, at a great distance, it emerges again.

(16) Here also is produced naphtha, an article of a pitchy and glutinous character, resembling bitumen: on which if ever so small a bird perches, it finds its flight impeded and speedily dies. It is a species of liquid, and when once it has taken fire, human ingenuity can find no means of extinguishing it except that of heaping dust on it.

(17) In the same district is seen an opening in the earth from which a deadly vapour arises, which by its foul odour destroys any animal which comes near it. The evil arises from a deep well, and if that odour spread beyond its wide mouth before it rose higher, it would make all the country round uninhabitable by its fetid effect.

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(20) Within this circuit is Adiabene, which was formerly called Assyria, but by long custom has received its present name from the circumstance, that being placed between the two navigable rivers, the Ona and the Tigris, it can never be approached by fording; for in Greek we use διαβαίνειν for "to cross": this was the belief of the ancients.

(21) But we say that in this country there are two rivers which never fail, which we ourselves have crossed, the Diabas and the Adiabas, both having bridges of boats over them; and that Adiabene has received its name from this last, as Egypt received its name from its great river, and India also. . . . In this district of Adiabene is the city of Nineveh, named after Ninus, a most mighty sovereign of former times, and the husband of Semiramis, who was formerly queen of Persia, and also the cities of Ecbatana, Arbela, and Gaugamela, where Alexander, after several other battles, gave the crowning defeat to Darius.

. . . . .

(23) In Assyria there are many cities, among which one

of the most eminent is Apamea, surnamed Mesene, and Teredon, and Apollonia, and Vologesia, and many others of equal importance. But the most splendid and celebrated are these three, Babylon, the walls of which Semiramis cemented with pitch; for its citadel indeed was founded by that most eminent monarch Belus; and Ctesiphon which Vardanes built long ago, and which subsequently King Pacorus enlarged by an immigration of many citizens, fortifying it also with walls, and giving it a name, made it the most splendid palace in Persia—next to it Seleucia, the splendid work of Seleucus Nicator.

. . . . . .

(25) Near to this is the region of the Chaldæans. . . . This district is watered by the noble rivers already mentioned. by the Marses, by the Royal river, and by that best of all, the Euphrates, which divides into three branches, and is navigable in them all, having many islands, and irrigating the fields around in a manner superior to any industry of cultivators, making them fit both for the plough and for the production of trees.

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(39) In this district [Acrapatena, a part of Media] there are many cities, the most celebrated of which are Zombis, Patigran, and Gazaca; but the richest and most strongly fortified are Heraclia, Arsacia, Europus, Cyropolis, and Ecbatana, all of which are situated in the Cyromedian region at the foot of Mount Jasonius.

(40) There are many rivers in this country, the principal of which are the Choaspes, the Gyndes, the Armadus, the Charinda, the Cambyses, and the Cyrus, to which on account of its size and beauty, the elder Cyrus, that amiable king, gave its present name, abolishing that which it used to bear, when he was proceeding on his expedition against Scythia; his reason being that it was strong, as he accounted himself to be, and that making its way with great violence, as he proposed to do, it falls into the Caspian Sea.

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Book XXIV., *Chap.* 1.—(1) After having ascertained the alacrity of his army, which with ardour and unanimity declared with their customary shout that their fortunate Emperor was invincible, Julian, thinking it well to put an

early end to his enterprise, after a quiet night ordered the trumpets to sound a march; and everything being prepared which the arduous duties of the war required, he, at daybreak, entered the Assyrian territory in high spirits, riding in front of his ranks, and exciting all to discharge the duties of brave men in emulation of his own courage.

. . . . . .

(3) Then in order to alarm the enemy by the idea of his superior numbers, should they attack him anywhere, or perceive him from a distance, he opened his ranks, so as to spread both horses and men over a larger space, in such a way that the rear was distant from the van nearly ten miles. . . .

(4) The baggage, the suttlers, all the camp-followers, and every kind of equipment, he placed between the two flanks of troops as they marched, so as not to leave them unprotected and liable to be carried off by any sudden attack, as has often happened. The fleet, although the river was exceedingly winding, was not allowed either to fall behind or to advance before the army.

(5) After two days' march we came near a deserted town called Dura, on the bank of the river, where many herds of deer were found, some of which were slain by arrows, and others knocked down by the heavy oars so that soldiers and sailors all had plenty of food. . . .

(6) Then after an easy march of four days, as evening came on, he embarked a thousand light armed troops on board his boats, and sent the Count Lucillianus to storm the fortress of Anatha, which like many other forts in that country, is surrounded by the waters of the Euphrates. . . .

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(9) . . . the fort was burnt. . . .

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(12) After having stormed and burnt the chief city, and sent away the prisoners, the army with increased confidence, raised triumphant shouts in honour of the Emperor, thinking that the gods were evidently making him the object of their peculiar care.

(13) And because in these unknown districts they were forced to be on unusual guard against hidden dangers, the troops especially feared the craft and exceeding deceitfulness of the enemy; and therefore the Emperor was everywhere,

sometimes in front, sometimes with his light-armed battalions protecting the rear, in order to see that no concealed danger threatened it, reconnoitring the dense jungles and valleys, and restraining the distant sallies of his soldiers, sometimes with his natural gentleness, and sometimes with threats.

(14) But he allowed the fields of the enemy which were loaded with every kind of produce to be burnt with their crops and cottages, after his men had collected all that they could themselves make use of. And in this way the enemy were terribly injured before they were aware of it; for the soldiers freely used what they had acquired with their own hands, thinking that they had found a fresh field for their valour; and joyful at the abundance of their supplies, they saved what they had in their own boats.

(15) But one rash soldier, being intoxicated, and having crossed over to the opposite bank of the river, was taken prisoner before our eyes by the enemy; and was put to death.

Chap. 2.—(1) After this we arrived at a fort called Thilutha, situated in the middle of the river on a very high piece of ground, and fortified by nature as if by the art of man. The inhabitants were invited gently, as was best, to surrender, since the height of their fort made it impregnable; but they refused all terms as yet, though they answered that when the Romans had advanced farther so as to occupy the interior of the country, they also as an appendage would come over to the conqueror.

(2) Having made this reply they quietly looked down upon our boats as they passed under the very walls without attempting to molest them. When that fort was passed we came to another called Achaiacala, also defended by the river flowing round it, and difficult to scale, whence we received a similar answer, and so passed on. The next day we came to another fort which had been deserted because its walls were weak; and we burnt it and proceeded.

(3) In the two next days we marched two hundred furlongs, and arrived at a place called Paraxmalcha. We then crossed the river, and seven miles further on we entered the city of Diacira, which we found empty of inhabitants but full of corn and excellent salt, and here we saw a temple placed on the summit of a lofty height. We burnt the city and put a few women to death whom we found there, and

having passed a bituminous spring, we entered the town of Ozogardana, which its inhabitants had deserted for fear of our approaching army; in that town is shown a tribunal of the emperor Trajan.

(4) This town also we burnt after we had rested there two days to refresh our bodies.

. . . . .

(6) Animated by their first success, our army advanced to the village of Macepracta, where were seen vestiges of walls half destroyed, which had once been of great extent, and had served to protect Assyria from foreign invasion.

(7) At this point a portion of the river is drawn off in large canals which convey it to the interior districts of Babylonia, for the service of the surrounding country and cities. Another branch of the river known as the Nahamalca, which means the " river of kings," passes by Ctesiphon: at the beginning of this stream there is a lofty tower like a lighthouse, by which our infantry passed on a carefully constructed bridge.

(8) The cavalry and cattle then took the stream where it was less violent, and swam across obliquely; another body was suddenly attacked by the enemy, with a storm of arrows and javelins, but our light-armed auxiliaries, as soon as they reached the other side, supported them, and put the enemy to flight, cutting them to pieces as they fled.

(9) After having successfully accomplished this exploit, we arrived at the city of Pirisabora, of great size and populousness, and also surrounded with water. But the Emperor having ridden all round the walls and reconnoitred its position, began to lay siege to it with great caution, as if he would make the townsmen abandon its defence from mere terror. But after several negotiations and conferences with them, as they would yield neither to promises nor to threats, he set about the siege in earnest, and surrounded the walls with three lines of soldiers. The whole of the first day the combat was carried on with missiles till nightfall.

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(11) . . . . after a great part of the day had been consumed in this slow disputing, at the beginning of night many kinds of engine were brought against the walls, and we began to fill up the ditches.

(12) But before it was quite dawn, the garrison perceived what was being done, with the addition that a violent stroke of a battering ram had broken down a tower at one corner; so they abandoned the double city wall, and occupied a citadel close to the wall, erected on the level summit of a ragged hill, of which the centre, rising up to a great height in its round circle, resembled an Argive shield, except that in the north it was not quite round, but at that point it was protected by a precipice which ran sheer down into the Euphrates; the walls were built of baked bricks and bitumen, a combination which is well known to be the strongest of all materials.

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(19) The garrison. . . .

(20) . . . . requested an opportunity of conferring with Hormisdas.

(21) And when this was granted, Mamersides, the commander of the garrison, was let down by a rope, and conducted to the Emperor as he desired, and having received a promise of his own life, and of immunity to all his comrades, he was allowed to return to the city. And when he related what had been done, the citizens unanimously agreed to follow his advice and accept the terms; and peace was solemnly made with all the sanctions of religion, the gates were thrown open, and the whole population proclaiming that a protecting genius had shone upon them in the person of the great and merciful Cæsar.

(22) The number of those who surrendered was two thousand five hundred, for the rest of the citizens, expecting the siege beforehand, had crossed the river in small boats and abandoned the city. In the citadel a great store of arms and provisions was found; and after they had taken what they required, the conquerors burnt the rest, as well as the place itself.

Chap. 8.—(8) Then, having burnt the city as I have already mentioned.

(10) . . . After proceeding fourteen miles further, we came to a certain spot where the soil is fertilised by the abundance of water. But as the Persians had learnt that we should advance by this road, they removed the dams, and allowed the water to flood the country.

(11) The ground being thereby, for a great distance,

reduced to the state of a marsh, the Emperor gave the soldiers the next day for rest, and advancing in front himself, constructed a number of little bridges of bladders, and coracles made of skins, and rafts of palm-tree timber, and thus led his army across, though not without difficulty.

(12) In this region many of the fields are planted with vineyards and various kinds of fruit trees, and palm trees grow there over a great extent of country, reaching as far as Mesene and the ocean, forming great groves.

. . . . .

(14) The army then, having sated itself with these fruits, passed by several islands, and instead of the scarcity which they apprehended, the fear arose that they would become too fat. At last . . . they came to a spot where the larger portion of the Euphrates is divided into a number of small streams.

Chap. 4.—(1) In this district a city, which on account of the lowness of its walls, had been deserted by its Jewish inhabitants, was burnt by our angry soldiers. And afterwards the Emperor proceeded further on, being elated at the manifest protection, as he deemed it, of the Deity.

(2) And when he reached Maogamalcha, a city of great size and surrounded with strong walls, he pitched his tent, and took anxious care that his camp should not be surprised by any sudden attack of the Persian cavalry, whose courage in the open plains is marvellously dreaded by the surrounding nations.

. . . . .

(6) The next day a bridge was laid across the river, and the army passed over it, and pitched their camp in a fresh and more healthy place, fortifying it with a double rampart, since, as we have said, the open plains were regarded with apprehension. And then he undertook the siege of the town, thinking it too dangerous to march forward while leaving formidable enemies in his rear.

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(8) And the inhabitants of two cities which are made islands by the rivers which surround them, fearing to trust in their means of defence, fled for refuge to Ctesiphon, some fleeing through the thick woods, others crossing the neighbouring marshes on canoes formed out of hollowed trees,

and thus made a long journey to the principal or, indeed, the only shelter which existed for them, intending to proceed to still more distant regions.

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(10) And by this time the Emperor was besieging with all his might and with a triple line of heavily armed soldiers this town which was fortified with a double wall; and he had great hope of succeeding in his enterprise. But if the attempt was indispensable, the execution was very difficult. For the approach to the town lay everywhere over rocks of great height and abruptness; across which there was no straight road; and dangers of two kinds seemed to render the place inaccessible. In the first place there were towers formidable both for their height and for the number of their garrison, equalling in height the natural mountain on which the citadel was built, and secondly, a sloping plain reached down to the river, which again was protected by stout ramparts.

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(13) . . . And when all the preparations for taking the city had been completed . . . a captain named Victor returned, who had explored all the roads as far as Ctesiphon, and now brought word that he had met with no obstacles.

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(25) At last the fated city, its numerous entrances being laid open, was entered by the Romans, and the furious troops destroyed all whom they found, without regard to age or sex. . . .

(30) . . . Thus was this large and populous city, with its powerful garrison, stormed by the Romans, and the city itself reduced to ruins.

(31) After this glorious exploit the bridges which led over several rivers were crossed in succession, and we reached two forts constructed with great strength and skill, where the son of the king endeavoured to prevent Count Victor, who was marching in the van of the army, from crossing the river, having advanced for that purpose from Ctesiphon with a large body of nobles and a considerable armed force, but when he saw the numbers that were following Victor, he retreated.

Chap. 5.—(1) So we advanced, and came to some groves, and also to some fields fertile with a great variety of crops,

where we found a palace built in the Roman fashion, which, so pleased were we with the circumstance, we left unhurt.

(2) There was also in this same place a large round space, enclosed, containing wild beasts, intended for the king's amusement, lions with shaggy manes, tusked boars, and bears of amazing ferocity (as the Persian bears are), and other chosen beasts of vast size. Our cavalry, however, forced the gates of this enclosure, and killed all the beasts with hunting-spears and clouds of arrows.

(3) This district is rich and well cultivated: not far off is Coche, which is also called Seleucia; where we fortified a camp with great celerity, and rested there two days to refresh the army with timely supplies of water and provisions. The Emperor himself in the meanwhile proceeded with his advanced guard and reconnoitred a deserted city which had been formerly destroyed by the Emperor Verus, where an everlasting spring forms a large tube, which communicates with the Tigris. . . .

(5) Then after advancing some distance we heard of a sad disaster: for while three cohorts of the advanced guard, who were in light marching order, were fighting with a Persian division, which had made a sally out of the city gates, another body of the enemy cut off and slew our cattle, which were following us on the other side of the river, with a few of our foragers who were straggling about in no great order.

(6) The Emperor was enraged and indignant at this; he was now near the district of Ctesiphon, and had just reached a lofty and well-fortified castle. He went himself to reconnoitre it, being, as he fancied, concealed, as he rode with a small escort, close to the walls; but as from too much eagerness he got within bowshot, he was soon noticed, and was immediately assailed by every kind of missile, and would have been killed by an arrow shot from an engine on the walls, if it had not struck his armour-bearer, who kept close by his side, and he himself, being protected by the closely packed shields of his guards, fell back, after having been exposed to great danger.

(7) At this he was greatly enraged, and determined to lay siege to the fort. . . .

(11) . . . And when he had exposed himself a long time to imminent danger, the castle, having been assailed by every kind of manœuvre, weapon and engine, and by great

valour on the part of the besiegers, was at length taken and burnt.

(12) After this, in consideration of the great labour of the exploits which they had performed, and which were before them, he granted rest to his army, exhausted with its excessive toil, and distributed among them provisions in abundance. Then a rampart was raised round the camp, with dense rows of palisades, and a deep fosse, as sudden sallies, and various formidable manœuvres were dreaded, since they were very near Ctesiphon.

Chap. 6.—(1) From this place they advanced to a canal known as Naharmalcha, a name which means "The River of Kings." It was then dry. Long ago Trajan, and after him Severus, had caused the soil to be dug out, and had given great attention to constructing this as a canal of great size, so that, being filled with water from the Euphrates, it might enable vessels to pass into the Tigris.

(2) And for every object in view it appeared best that this should now be cleared out, as the Persians fearing such an operation, had blocked it up with a mass of stones. After it had been cleared and the dams removed, a large body of water was let in, so that our fleet, after a safe voyage of 30 furlongs, passed into the Tigris. There the army at once threw bridges across the river, and passing over to the other side, marched upon Coche.

(3) And that after our fatigue we might enjoy seasonable rest, we encamped in an open plain, rich with trees, vines and cypresses, in the middle of which was a shady and delicious palace, having all over it, according to the fashion of the country, pictures of the king slaying wild beasts in the chase; for they never paint or in any way represent, anything except different kinds of slaughter and war.

(4) Having now finished everything according to his wish, the Emperor, rising higher in spirit as his difficulties increased . . . unloaded some of the strongest of the vessels which were carrying provisions and warlike engines, and put on board of them eight hundred armed men; and keeping the main part of his fleet with him, which he divided into three squadrons, he settled that one under the command of Count Victor should start at nightfall, in order to cross the river with speed, and so seize on the bank in possession of the enemy.

(5) The generals were greatly alarmed at this plan, and unanimously entreated him to forego it; but as they could not prevail the signal for sailing was raised, as he commanded, and at once five ships hastened onwards out of sight; and when they drew near to the bank they were attacked with an incessant storm of firepots and every contrivance to kindle flames, and they would have been burnt, soldiers and all, if the Emperor, being roused, had not with great energy hastened to the spot, shouting out that our men, as they were ordered, had made him a signal that they were now masters of the bank of the river, and ordering the whole fleet to hasten forward with all speed.

(6) In consequence of which vigour the ships were saved, and the soldiers, though harassed by the enemy from their commanding ground with stones and every kind of missile, nevertheless after a fierce conflict made good their footing on the high bank of the river, and established themselves immovably.

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(8) The Persians resisted this attack with squadrons of cuirassier cavalry in such close order that their bodies dazzled the eye, fitting together as it seemed, with their brilliant armour; while their horses were all protected with a covering of stout leather. As a reserve to support them several maniples of infantry were stationed, protected by crooked, oblong shields, made of wickerwork and raw hides, behind which they moved in compact order. Behind them were elephants, like so many walking hills, which by every motion of their huge bodies threatened destruction to all who came near them, and our men had been taught to fear them by past experiences.

. . . . .

(10) Therefore when the two armies beheld each other, the Romans glittering with their crested helmets, and brandishing their shields, proceeded slowly, their bands playing an anapæstic measure; and after a preliminary skirmish, carried on by the missiles of the front rank, they rushed to battle with such vehemence that the earth trembled beneath them.

(11) The battle-shout was raised on all sides, as was usual, the braying trumpets encouraging the eagerness of the men:

all fought in close combat with spears and drawn swords, so that the soldiers were free from all danger of arrows the more rapidly they pressed onwards. Meanwhile, Julian, like a gallant comrade, at the same time that he was a skilful general, hastened to support his hardly-pressed battalions with reserves, and to cheer on the laggards.

(12) So the front line of the Persians wavered, having been never very fierce; and at last, no longer able to support the heat of their armour, they retreated in haste to their city, which was near: they were pursued by our soldiers, weary as they were, having fought in those torrid plains from daybreak to sunset; and we, pressing close on their heels, drove them with their choicest generals, Pigranes, the Surena, and Narses, right up to the walls of Ctesiphon, inflicting many wounds on their legs and backs.

(13) And we should have forced our entrance into the city if a general named Victor had not, by lifting up his hands and his voice checked us, being himself pierced through the shoulder with an arrow, and fearing lest if the soldiers allowed themselves to be hurried within the walls without any order, and could then find no means of returning, they might be overwhelmed by the mass of their enemies.

(14) Let the poets celebrate the ancient battles of Hector, or extol the valour of the Thessalian Achilles; let past ages tell the praises of Sophanes, and Aminias, and Callimachus, and Cynægirus, those thunderbolts of war in the struggles of the Greeks against Persia; but it is evident by the confession of all men, that the gallantry displayed by some of our troops on that day was equal to any of their exploits.

(15) After having laid aside their fears, and trampled on the carcases of their enemies, the soldiers, still stained with the blood so justly shed, collected round the tent of the Emperor, loading him with praises and thanks, because, while behaving with such bravery that it was hard to say whether he had been more a general or a soldier, he had conducted the affair with such success that not above seventy of our men had fallen, while nearly two thousand five hundred of the Persians had been slain. And he in his turn addressed by name most of those whose steady courage and gallant actions he had witnessed, presenting them with naval, civic, and military crowns.

Chap. 7.—(1) Julian, having discussed with his chief

officers the plan for the siege of Ctesiphon, it appeared to some of them that it would be an act of unseasonable temerity to attack that city, both because its situation made it almost impregnable, and also because King Sapor was believed to be hastening to its protection with a formidable army.

(2) The better opinion prevailed; and the sagacious Emperor, being convinced of its wisdom, sent Arinthæus with a division of light infantry, to lay waste the surrounding districts, which were rich both in herds and crops, with orders to pursue the enemy with equal energy, for many of them were wandering about, concealed amid overgrown by-ways, and lurking places known only to themselves. The booty was abundant.

(3) But Julian himself, being always eager to extend his conquests, disregarded the advice of those who remonstrated against his advance; and reproaching his chiefs, as men who, out of mere laziness and a love of ease, advised him to let go the kingdom of Persia when he had almost made himself master of it, left the river on his left hand, and led by unlucky guides, determined to proceed toward the inland parts of the country by forced marches.

(4) And he ordered all his ships to be burnt, as if with the fatal torch of Ballona herself, except twelve of the smaller vessels, which he arranged should be carried on waggons, as likely to be of use for building bridges. And he thought this a most excellently conceived plan, to prevent his fleet if left behind being of any use to the enemy; or, on the other hand, to prevent what happened at the outset of the expedition, nearly twenty thousand men being occupied in moving and managing the vessels.

(5) Then, as the men began in their alarm to grumble to themselves (as indeed manifest truth pointed out) that the soldiers if hindered from advancing by the height of the mountains or the dryness of the country, would have no means of returning to get water, and when the deserters, on being put to the torture openly confessed that they had made a false report, he ordered all hands to labour to extinguish the flames. But the fire, having got to a great head, had consumed most of them, so that only the twelve could be preserved unhurt, which were set apart to be taken care of.

(6) In this way the fleet being unseasonably destroyed, Julian, relying on his army which was now all united, having

none of its divisions diverted to other occupations, and so being strong in number, advanced inland, the rich district through which he marched supplying him with an abundance of provisions.

(7) When this was known, the enemy, with a view to distressing us by want of supplies, burnt up all the grass and the nearly ripe crops; and we being unable to advance by reason of the conflagration, remained stationary in our camp till the fire was extinguished. And the Persians, insulting us from a distance, sometimes spread themselves widely on purpose, sometimes offered us resistance in a compact body; so that to us who beheld them from a distance it might seem that the reinforcements of the King had come up, and we might imagine that it was on that account that they had ventured on their audacious sallies and unwonted enterprises.

(8) Both the Emperor and the troops were greatly vexed at this, because they had no means of constructing a bridge, since the ships had been inconsiderately destroyed, nor could any check be offered to the movements of the strange enemy, whom the glistening brilliancy of their arms showed to be close at hand; this armour of theirs being singularly adapted to all the inflections of their body. There was another evil of no small weight, that the reinforcements which we were expecting to arrive under the command of Arsaces and some of our generals, did not make their appearance, being detained by the causes already mentioned.

Book VIII. *Chap.* 1.—The Emperor . . . (2) . . . held a consultation on what was to be done; and after many opinions of different kinds had been delivered, the common soldiers inconsiderately crying out that it was best to return by the same way they had advanced, the Emperor steadily opposed this idea, and was joined by several officers who contended that this could not be done, since all the forage and crops had been destroyed throughout the plain, and the remains of the villages which had been burnt were all in complete destitution, and could afford no supplies; because also the whole soil was soaked everywhere from the snows of winter, and the rivers had overflowed their banks and were now formidable torrents.

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(5) However, it was decided, that since there was no

better prospect before us, to seize on Corduena; and on the 16th June we struck our camp, and at daybreak the Emperor set forth, when suddenly was seen either smoke or a great cloud of dust . . .

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(7) Therefore . . . the trumpets sounded a halt, in order to guard against any reverse, and we halted in a grassy valley near a stream, where, packing our shields in close order and in a circular figure we pitched our camp and rested in safety.

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Book XXV., *Chap.* 1. . . . As soon as day broke, brilliant breast-plates, surrounded with steel fringes, and glittering cuirasses, were seen at a distance, and showed that the King's army was at hand.

(2) The soldiers were roused at this sight, and hastened to engage, since only a small stream separated them from the Persians, but were checked by the Emperor; a sharp skirmish did indeed take place between our outposts and the Persians, close to the rampart of our camp.

(3) Both sides were nearly exhausted with the intolerable violence of the heat and the repeated conflicts, but at last the hostile battalions were driven back in great disorder.

(4) After leaving this district we reached a village called Hucumbra, where we rested two days, procuring all kinds of provisions and abundance of corn, so that we moved on again after being refreshed beyond our hopes; all that the time would not allow us to take away we burnt.

(5) The next day the army was advancing more quietly; when the Persians unexpectedly fell on our last divisions . . . our cavalry . . . repulsed this dangerous attack, wounding all who had thus surprised them.

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(10) . . . Having advanced seventy furlongs with very scanty supplies, the herbage and the corn being all burnt, each man saved for himself just as much of the grain of forage as he could snatch from the flames and carry.

(11) And having left this spot, when the army had arrived at the district called Maranx, near daybreak an immense multitude of Persians appeared, with Merenes, the

captain of their cavalry, and two sons of the King, and many nobles.

(12) All the troops were clothed in steel, in such a way that their bodies were covered with strong plates, so that the hard joints of the armour fitted every limb of their bodies; and on their heads were effigies of human faces so accurately fitted, that their whole persons being covered with metal, the only place where any missiles which fell upon them could stick, was either where there were minute openings to allow of the sight of the eyes penetrating, or where holes for breathing were left at the extremities of the nostrils.

(13) Part of them who were prepared to fight with pikes stood immovable, so that you might have fancied they were held in their places by fastenings of brass; and next to them the archers (in which art that nation has always been most skilful from the cradle) bent their supple bows with widely extended arms, so that the strings touched their right breasts, while the arrows lay just upon their left hands; and the whistling arrows flew, let loose with great skill of finger, bearing deadly wounds.

(14) Behind them stood the glittering elephants in formidable array, whose grim looks our terrified men could hardly endure; while the horses were still more alarmed at their growl, odour, and unwonted aspect.

(15) Their drivers rode on them, and bore knives with handles fastened to their right hands.

(16) The sight of these beasts caused great alarm; and so the most intrepid Emperor, attended with a strong body of his armed cohorts and many of his chief officers, as the crisis and the superior numbers of the enemy required, marshalled his troops in the form of a crescent with the wings bending inwards to encounter the enemy.

(17) And to hinder the onset of the archers from disordering our columns, by advancing with great speed he baffled the aim of their arrows and after he had given the formal signal for fighting, the Roman infantry, in close order, beat back the front of the enemy with a vigorous effort.

(18) The struggle was fierce, and the clashing of the shields, the din of the men, and the doleful whistle of the javelins, which continued without intermission, covered the plains with blood and corpses, the Persians falling in every direction. . . . So the Parthians were defeated by

prodigious efforts, till our soldiers, exhausted by the heat of the day, on the signal for the retreat being sounded, returned to their camp, encouraged for the future to greater deeds of daring. In this battle, as I have said, the loss of the Persians was very great—ours was very slight.

Chap. 2.—(1) After this there was an armistice for three days, while the men attended to their own wounds or those of their friends, during which we were destitute of supplies, and distressed by intolerable hunger; . . .

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(8) . . . At break of day the camp was struck.

Chap. 3.—(1) When we set forward, the Persians, who had learnt by their frequent defeats to shun pitched battles, laid secret ambuscades on our road, and occupying the hills on each side, continually reconnoitred our battalions as they marched, so that our soldiers, being kept all day on the watch, could find neither time to erect ramparts round their camp, nor to fortify themselves with palisades.

(2) And while our flanks were strongly guarded, and the army proceeded onward in as good order as the nature of the ground would allow, being formed in squares, though not quite closed up, suddenly news was brought to the Emperor, who had gone on unarmed to reconnoitre the ground in front, that our rear was attacked.

(3) He, roused to anger by this mishap, without stopping to put on his breastplate, snatched up his shield in a hurry, and while hastening to support his rear, was recalled by fresh news that the van which he had quitted was now exposed to a similar attack.

(4) Without a thought of personal danger, he now hastened to strengthen this division, and then, on another side, a troop of Persian curassiers attacked his centre, and pouring down with vehemence on his left wing, which began to give way, as our men could hardly bear up against the foul smell and horrid cries of the elephants, they pressed us hard with spears and clouds of arrows.

(5) The Emperor flew to every part of the field where the danger was hottest; and our light armed troops dashing out wounded the backs of the Persians, and the hocks of the animals, which were turned the other way.

(6) Julian, disregarding all care for his own safety, made

signs by waving his hands, and shouted out that the enemy were fleeing in consternation; and cheering on his men to pursuit, threw himself eagerly into the conflict. His guards called out to him from all sides to beware of the mass of fugitives who were scattered in consternation, as he would beware of the fall of an ill-built roof, when suddenly a cavalry spear, grazing the skin of his arm, pierced his side, and fixed itself in the bottom of his liver.

(7) He tried to pull it out with his right hand, and cut the sinews of his fingers with the double-edged point of the weapon; and falling from his horse, he was borne with speed by the men around him to his tent; and the physician tried to relieve him.

(8) Presently, when his pain was somewhat mitigated, . . . contending against death with great energy, he asked for arms and a horse in order that, by revisiting his troops, who were still engaged, he might restore their confidence.

(9) But as Julian's strength was inferior to his firmness, and as he was weakened by the loss of blood, he remained without moving: and presently he gave up all hope of life; because, on inquiry, he found that the place where he had fallen was called Phrygia; for he had been assured by an oracle that he was destined to die in Phrygia.

(10) When he was brought back to his tent, it was marvellous with what eagerness the soldiers flew to avenge him, agitated with anger and sorrow; and striking their spears against their shields, determined to die if Fate so willed it. And although vast clouds of dust obscured their sight, and the burning heat hindered the activity of their movements, still, as if they were released from all military discipline by the loss of their chief, they rushed unshrinkingly on the enemy's swords.

(11) On the other hand, the Persians, fighting with increased spirit, shot forth such clouds of arrows, that we could hardly see the shooters through them; while the elephants, slowly marching in front, by the vast size of their bodies and the formidable appearance of their crests, terrified alike our horses and our men.

(12) And far off was heard the clashing of armed men, the groans of the dying, the snorting of horses, and the clang of swords, till both sides were weary of inflicting wounds, and the darkness of night put an end to the contest.

(13) Fifty nobles and satraps of the Persians, with a vast number of the common soldiers, were slain, and among them two of their principal generals, Merena, and Nohodares. . . .

(14) But sorrow now overpowered the joy at this success. While the conflict was thus carried on after the withdrawal of the Emperor, the right wing of the army was exhausted by its exertions; and Anatolius, at that time the master of the offices, was killed; Sallust the prefect was in imminent danger, and was saved only by the exertions of his attendant, so that at last he escaped, while Sophrorius his counsellor was killed; and certain soldiers, who, after great danger, had thrown themselves into a neighbouring fort, were unable to join the main army till three days afterwards.

(15) And while these events were taking place, Julian, lying in his tent . . . addressed those who stood around him sorrowing and mourning. . . .

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(23) . . . Julian expired quietly about midnight, in the thirty-first year of his age.

Chap. 5.—(1) After these events there was no time for lamentation or weeping. For after he had been laid out as well as the circumstances and time permitted, that he might be buried where he himself had formerly proposed, at daybreak the next morning, which was on the 27th June, while the enemy surrounded us on every side, the generals of the army assembled, and having convened the chief officers of the cavalry and of the legions, deliberated about the election of an emperor.

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(4) . . . Jovian was elected emperor, being the chief officer of the guards. . . .

(5) And immediately he was clothed in the imperial robes, and was suddenly led forth out of the tent and passed at a quick pace through the army as it was preparing to march.

(6) And as the line extended four miles, those in the van hearing some persons salute Jovian as Augustus, raised the same cry still more loudly. . . .

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(8) This affair having been settled by a blind sort of decision of Fortune, the standard bearer of the Jovian

legion . . . having had a quarrel with the new Emperor while he was a private individual fled to the Persians. And having been allowed to tell what he knew he informed Sapor, who was at hand, that the prince whom he dreaded was dead, and that Jovian, who had hitherto been only an officer of the guards, a man of neither energy nor courage, had been raised by a mob of camp drudges to a kind of shadow of the imperial authority.

(9) Sapor hearing this news, which he had always anxiously prayed for and being elated by this unexpected good fortune, having reinforced the troops who had fought against us with a strong body of the royal cavalry, sent them forward with speed to attack the rear of our army.

Chap. 6.—(1) And while these arrangements were being made, the victims and entrails were inspected on behalf of Jovian, and it was pronounced that he would ruin everything if he remained in the camp, as he proposed, but that if he quitted he would have the advantage.

(2) And just as we were beginning our march, the Persians attacked us, preceded by their elephants. . . .

(3) . . . On our left wing three most gallant men were slain, Julian, Macrobius, and Maximus, all tribunes of the legions which were then the chief of the whole army.

(4) When they were buried as well as circumstances permitted, as night was drawing on, and as we were pressing forward with all speed towards a fort called Sumere, the dead body of Anatolius was recognised and buried with a hurried funeral. Here also we were rejoined by sixty soldiers and a party of the guards of the palace, whom we have mentioned as having taken refuge in a fort called Vaccatum. Then on the following day we pitched our camp in a valley in as favourable a spot as the nature of the ground permitted, surrounding it with a rampart like a wall, with sharp stakes fixed all round like so many swords, with the exception of one wide entrance. . . .

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(8) Quitting this camp, the next night we reached a place called Charcha, where we were safe, because the artificial mounds of the river had been broken to prevent the Saracens from overrunning Armenia so that no one was able to harass our lines as they had done before.

(9) Then on the 1st of July we marched thirty furlongs more, and came to a city called Dura. . . .

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(11) Here, owing to the obstinate hostility of the Persians, we lost four days. For when we advanced they followed us, compelling us to retrace our steps by their incessant attacks. . . . And now (for when men are in great fear even falsehoods please them) a report being spread that we were at no great distance from our own frontier, the army raised an impatient shout, and demanded to be at once led across the Tigris.

(12) But the Emperor and his officers opposed the demand, and showed them that the river, now just at the time of the rising of the Dogstar, was much flooded, entreated them not to trust themselves to its dangerous currents, reminding them that most of them could not swim, and adding likewise that the enemy had occupied the banks of the river, swollen as it was, at many parts.

(13) But when the demand was repeated over and over again in the camp, and the soldiers with shouts and great eagerness began to threaten violence, the order was given very unwillingly that the Gauls, mingled with the northern Germans, should lead the way into the river, in order that, if they were carried away by the violence of the stream the obstinacy of the rest might be shaken, or, on the other hand, if they accomplished the passage in safety the rest might attempt it with more confidence.

(14) And men were selected suited to such an enterprise, who from their childhood had been accustomed in their native land to cross the greatest rivers. And when the darkness of night presented an opportunity for making the attempt unperceived, as if they had just escaped from a prison, they reached the opposite bank sooner than they could have been expected; and having beaten down and slain numbers of the Persians, whom, though they had been placed there to guard the passage, their fancied security had lulled into a gentle slumber, they held up their hands, and shook their cloaks so as to give the concerted signal that their bold attempt had succeeded.

(15) And when the signal was seen, the soldiers became eager to cross, and could only be restrained by the promise

of the engineers to make them bridges by means of bladders, and the hides of slaughtered animals.

Chap. 7.—(1) While these vain attempts were going on, King Sapor, both while at a distance and also when he approached, received from his scouts, and from our deserters, a true account of the gallant exploits of our men, of the disgraceful slaughter of his own troops, and also of his elephants in greater numbers than he ever remembered to have lost before. And he heard also that the Roman army, being hardened by its continual labours since the death of its glorious chief, did not now think so much, as they said, of safety as of revenge; and were resolved to extricate themselves from their difficulties either by a complete victory or by a glorious death.

(2) He looked on this news as formidable, being aware by experience that our troops who were scattered over these provinces could easily be assembled, and knowing also that his own troops after their heavy losses were in a state of the greatest alarm; he also heard that we had in Mesopotamia an army little inferior in numbers to that before him.

(3) And besides all this, his courage was damped by the fact of five hundred men having crossed that swollen river by swimming in perfect safety, and having slain his guards, and so emboldened the rest of their comrades to similar hardihood.

(4) As the violence of the stream prevented any bridges from being constructed, and as everything which could be eaten was consumed, we passed two days in great misery, and the starving soldiers began to be furious with rage, thinking it better to perish by the sword than by hunger, that most degrading death.

(5) But the eternal providence of God was on our side, and beyond our hopes the Persians made the first overtures, sending the Surena and another noble as ambassadors to treat for peace. . . .

(6) But the conditions which they proposed were difficult, since they pretended that, out of regard for humanity, their merciful monarch was willing to permit the remains of our army to return home, provided the Cæsar, with his officers, would satisfy his demands.

(7) In reply, we sent as ambassadors on our part Arinthæus and Sallustius; and while the proper terms were

being discussed with great deliberation, we passed four more days in great suffering from want of provisions, more painful than any kind of torture.

(8) And in this truce, if before the ambassadors were sent, the Emperor, being disabused, had retired slowly from the territories of the enemy; he would have reached the forts of Corduena, a rich region belonging to us, only one hundred miles from the spot where these transactions were being carried on.

(9) But Sapor obstinately demanded (to use his own language) the restoration of those territories which had been taken from him by Maximian; but as was seen in the progress of the negotiation, he in reality required, as the price of our redemption, five provinces on the other side of the Tigris—Arzanena, Moxoena, Zabdicena, Rehemena, and Corduena, with fifteen fortresses, besides Nisibis and Singara, and the important fortress called the Camp of the Moors.

(10) And though it would have been better to fight ten battles than to give up one of them, still a set of flatterers harassed our pusillanimous Emperor with harping on the dreaded name of Procopius, and affirmed that unless we quickly recrossed the river, that chieftain, as soon as he heard of the death of Julian, would easily bring about a revolution which no one could resist by means of the fresh troops which he had under his command.

(11) Jovian, being wrought upon by the constant reiteration of these evil counsels, without further delay gave up everything that was demanded, with this abatement which he obtained with difficulty, that the inhabitants of Nisibis and Singara should not be given up to the Persians as well as the cities themselves; and that the Roman garrisons in the forts about to be surrendered should be permitted to retire to fortresses of their own.

(12) To which another mischievous and unfair condition was added, that after this treaty was concluded we were not at liberty to assist Arsaces against the Persians, if he implored our aid, though he had always been our friend and trusty ally. And this was insisted on by Sapor for two reasons, in order that the man might be punished who had laid waste Chiliocomum at the Emperor's command, and also that facility might be given for invading Armenia without a check.

(13) This ignoble treaty being made, that nothing might be done during the armistice in contravention of its terms, some men of rank were given as hostages on each side. . . .

(14) So peace was made for thirty years, and ratified by solemn oaths; and we, returning by another line of march, because the parts near the river were rugged and difficult, suffered severely for want of water and provisions.

Chap. 8.—(1) The peace which had been granted on pretence of humanity was turned to the ruin of many who were so exhausted by want of food as to be at the last gasp, and who in consequence could only creep along, and were either carried away by the current of the river from not being able to swim, or if able to overcome the force of the stream so far as to reach the bank, were either slain like sheep by the Saracens or Persians (because, as we stated some time back, the Germans had driven them out), or sent to a distance to be sold as slaves.

(2) But when the trumpets openly gave the signal for crossing the river, it was dreadful to see with what ardour every individual hastened to rush into this danger, preferring himself to all his comrades in the desire of avoiding the many dangers and distresses behind him. Some tried to guide the beasts who were swimming about at random with hurdles hurriedly put together; others, seated on bladders, and others being driven by necessity to all kinds of expedients, sought to pass through the opposing waves by crossing them obliquely.

(3) The Emperor himself with a few others crossed over in the small boats, which we said were saved when the fleet was burnt, and then sent the same vessels backwards and forwards till our whole body was brought across. And at length all of us except such as were drowned, reached the opposite bank of the river, being saved amid our difficulties by the favour of the Supreme Deity.

(4) While we were still oppressed with the fear of impending disasters, we learnt from information brought in by our outposts that the Persians were throwing a bridge over the river some way off, at a point out of our sight, in order that while all ideas of war were put an end to on our side by the ratification of the treaty of peace, they might come upon our invalids as they proceeded carelessly onwards, and on the animals exhausted with fatigue. But when they

found their purpose discovered, they relinquished their base design.

(5) Being now relieved from this suspicion, we hastened on by rapid marches, and approached Hatra, an ancient town in the middle of a desert, which had been long since abandoned, though at different times those warlike Emperors, Trajan and Severus, had attacked it with a view to its destruction, but had been almost destroyed with their armies.

(6) And as we now learnt that over the vast plain before us for seventy miles in that arid region no water could be found but such as was brackish and fetid, and no kind of food but southernwood, wormwood, dracontium, and other bitter herbs, we filled the vessels which we had with sweet water, and having slain the camels, and the rest of the beasts of burden, we thus sought to ensure some kind of supplies, though not very wholesome.

(7) For six days the army marched, till at last even grass, the last comfort of extreme necessity, could not be found; when Cassianus, Duke of Mesopotamia, and the tribune Mauricius, who had been sent forward with this object, came to a fort called Ur, and brought some food from the supplies which the army under Procopius and Sebastian had managed to preserve.

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(15) While different reports were flying about of what had taken place, the scanty supplies which I have spoken of as having been brought, were consumed, and necessity might have driven the men to eat one another, if the flesh of the animals slain had not lasted them a little longer; but the consequence of our destitute condition was, that the arms and baggage were thrown away; for we were so worn out by this terrible famine, that whenever a single bushel of corn was found (which seldom happened), it was sold for ten pieces of gold at least.

(16) Marching on from thence, we came to Thilsaphata. . . .

(17) After this, proceeding with all possible speed, we rejoiced when we saw Nisibis, where the Emperor pitched a standing camp outside the walls; and being most earnestly entreated by the whole population to come to lodge in the

palace according to the custom of his predecessors, he positively refused, being ashamed that an impregnable city should be surrendered to an enraged enemy while he was within its walls.

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Chap. 10.—(4) The Emperor remained a short time at Antioch, distracted by many important cares, but desirous above all things to proceed.

(5) Being in excessive haste to depart from thence, he ordered decorations for the tomb of Julian, which was placed in the suburb, in the road leading to the defiles of Mount Taurus. Though a sound judgment would have decided that the ashes of such a prince ought not to lie within sight of the Cydnus, however beautiful and clear that river is, but, to perpetuate the glory of his achievements, ought rather to be placed where they might be washed by the Tiber as it passes through the Eternal City and winds round the monuments of the ancient gods.

APPENDIX 16

THE LANDS OF THE EASTERN CALIPHATE

By G. LE STRANGE

Abbreviations.		A.H.	A.D.
I.K.	Ibn Khurdâdih	250	(864)
Kud.	Kudâmah	266	(880)
Ykb.	Ya'kûbî	278	(891)
I.S.	Ibn Serapion	290	(903)
I.R.	Ibn Rustah	290	(903)
I.F.	Ibn Fakîh	290	(903)
Mas.	Mas'ûdî	332	(943)
Ist.	Istakhrî	340	(951)
I.H.	Ibn Hawlal	367	(978)
Muk.	Mukaddasî	375	(985)
N.K.	Nâsir-i-Khusraw	438	(1047)
F.N.	*Fârs Nâmah*	500	(1107)
Idr.	Idrîsî	548	(1154)
I.J.	Ibn Jubayr	580	(1184)
Yak.	Yâkût	623	(1225)
Kaz.	Kazvînî	674	(1275)
Mar.	*Marâsid*	700	(1300)
A.F.	Abu-l-Fidâ	721	(1321)
Mst.	Mustawfî	740	(1340)
I.B.	Ibn Batûtah	756	(1355)
Hfz.	Hâfiz Abrû	820	(1417)
A.Y.	'Alî of Yazd	828	(1425)
J.N.	Jahân Numâ	1010	(1600)
A.G.	Abu-l-Ghâzî	1014	(1604)

CHAP. 3.—The chief high-road from Baghdâd to Mosul and the northern towns went along the left or eastern bank of the Tigris. It left East Baghdâd by the Baradân Gate of the Shammâsiyah quarter, and in about four leagues reached the small town of Al-Baradân, which still exists under the slightly altered form of Badrân. Close to Baradân were two other important villages, Bazûghâ and Al-Mazrafah, the latter lying three leagues above Baghdâd. At Ar-Râshidiyah, near Baradân, the Khâlis canal joined the Tigris, as will be explained presently; and immediately above this, at the present day, ends a great bend of the Tigris to the eastward,

which bend begins at Kâdisiyah 60 miles north of Baghdâd. The river-bed, however, during the middle ages took an almost straight line from Kâdisiyah to Baradân, and the ruins still exist on the eastern side of the dry channel, the names being marked on the map, of towns mentioned by Ibn Serapion and other early authorities.

The bed of the Tigris would indeed appear to have changed here more than once. What is the present (eastern) channel of the river, the author of the Marâsid, writing about the year 700 (1300), speaks of as the Shutaytah, or "Lesser Stream," and one of the great alterations must have taken place during the reign of the Caliph Mustansir, namely, between the years 623 and 640 (1226 to 1242), for it is chronicled that he dug many canals to irrigate the canals left dry by the shifting of the main stream. As early as the 4th (10th) century also, Mas'ûdi speaks of law-suits, to which this changing of the Tigris bed had given rise, between the landowners on the eastern and western banks above Baghdâd. Of these towns then lying on the east bank of the Tigris (their ruins being now found on the dry channel far to the westward of the present river) one of the best known was 'Ukbara, close to which lay Awânâ, and then Busrâ farther down-stream, the three places standing some ten leagues from Baghdâd. They lay surrounded by gardens to which pleasure-seekers from the capital resorted, and Mukaddasî especially praises the grapes of 'Ukbara, which he says was a large and populous town. A short distance above 'Ukbara was 'Alth or Al-'Alth, which is still marked on our maps, but now on the western bank, and Mukaddasî describes this as a large and very populous city, lying on a branch canal from the Tigris. North-west of 'Alth, where the river at the present day turns off eastward for the great bend, stands Kâdisîyah on the Tigris—not to be confused with the place of the same name to the west of the Euphrates. It was famous for its glass works, and opposite to it the Dujayl canal branched from the Tigris going south.[1]

The Dujayl canal (this also not to be confounded with the Dujayl river, the Karûn), had originally been a channel from the Euphrates to the Tigris, but by the beginning of the 4th (10th) century its western part had become silted up,

[1] Kud. 214. Múk. 122, 123. Mas. I. 223. Yak. I. 395, 552, 606, 654; III. 705; IV. 9, 520. Mar. II. 270, 429.

and its eastern and lower course was then kept clear by a new channel, taken from the Tigris immediately below Kâdisîyah. The Dujayl—meaning "the little Tigris"—watered all the rich district of Maskin lying to the north of West Baghdâd beyond Katrabbul. The later Dujayl was therefore a loop-canal of the Tigris, which it rejoined opposite 'Ukbara, after throwing off a number of branches, some of which ran so far south as to bring water to the Harbîyah, the great northern suburb of West Baghdâd. The district of the Dujayl, otherwise called Maskin, included a great number of villages and towns, lying westward of 'Ukbara and the Tigris channel, the chief of which was Harbâ, which was visited by Ibn Jubayr in 580 (1184) and still exists. Here may be seen to the present day the ruins of a great stone bridge across the canal which, as the historian Fakhrî records and the extant inscription still testifies, was built by the Caliph Mustansir in 692 (1232). Near Harbâ was Al-Hazîrah (the Enclosure), where the cotton stuffs called Kirbâs were manufactured, being largely exported. Yâkût further names a considerable number of villages—there were over a hundred in all—which were of this district, and many of these, as for example Al-Balad (the Hamlet), near Hazîrah, are still to be found on the map. As late as the 8th (14th) century, the Dujayl district, with Harbâ for its chief town, is described by Mustawfî as of amazing fertility, and its pomegranates were the best to be found in the markets of Baghdâd.

Many other towns were of this district. About ten miles above Kâdisîyah is Sâmarrâ, and Matîrah lay halfway between the two, immediately above where three small canals branched from the left (east) bank of the Tigris. Midway between Matîrah and Kâdisîyah, below the exit of these canals, stood Barkuwârâ, otherwise Balkuwârâ, or Bazkuwâr. The village of Al-Matîrah, according to Yâkût, had derived its name from a certain Matar of the Shaybân tribe, who was a notable man of the Khârijite sect, and it had originally been called Al-Matarîyah, thus in time becoming corrupted to Al-Matîrah.[1] Ten miles north, again, of Sâmarrâ was Karkh Fîrûz, also called Karkh of Sâmarrâ, to distinguish it from Karkh the southern quarter of West Baghdâd, and farther to the north lay Dûr, where the great

[1] Ykb. 265. I.S. 14. I.J. 233. Yak. I. 178, 605; II. 235, 292, 555; IV. 529, 568. Mst. 138. Fakhri 380.

Nahrawân canal branched from the left bank of the Tigris. At this point, but from the right or western bank of the Tigris, began the Ishâkî canal, which, making a short loop, rejoined the river again opposite Matîrah. The positions of all these places are fixed by the canals; some of them, in ruin, also still exist, but nothing is known of them beyond their names.

Chap. 4.—Sâmarrâ, which for more than half a century and during the reigns of seven Caliphs, from 221 to 279 (836 to 892), became the Abbasid capital, had existed as a town before the Arab conquest, and long after it had fallen from its temporary pre-eminence continued to be an important city. The name in Aramæan is written Sâmarrâ, which the Caliph Mu'tasim, when he took up his residence here, changed officially to Surra-man-raa, "for good augury," these words in Arabic signifying, "Who sees it, rejoices." Under this form it is a mint city on Abbasid coins.

Ya'kûbî writing at the close of the 3rd (9th) century has left us a long and detailed account of Sâmarrâ and its palaces, for the seven Caliphs who lived here, mostly as the prisoners of their Turk bodyguard, occupied their enforced leisure in building, and in laying out pleasure-grounds. The city proper stood on the eastern bank of the Tigris and extended with its palaces for a distance of seven leagues along the river. On the western bank also many palaces were built, each Caliph in succession spending fabulous sums on new pleasure-grounds. The land where the Caliph Mu'tasim (a younger son of Hârûn-ar-Rashîd) built his first palace when he first came to Sâmarrâ in 221 (836) belonged to a Christian monastery (Dayr), which was bought for 4000 dînârs (£2000), and it was known as At-Tîrhân. His Turk bodyguard was granted fiefs at Karkh, and farther upstream to Dûr, some also lay south of Sâmarrâ towards Matîrah. . . . A thoroughfare called the Great Road (Ash-Shâri-'al-A'zam) was laid out along the Tigris bank, being bordered by the new palaces and the fiefs, and this road went from Matîrah right up to Karkh, many by-roads and market streets branching from it. The new Treasury and Government offices also were built, and the Great Hall called Dâr-al-'Âmmah (the Public Audience Chamber) where the Caliphs sat in state on Mondays and Thursdays.

Besides his palace in Sâmarrâ, Mu'tasim laid out a

plaisance on the west side of the Tigris opposite the new capital, with which it was connected by a bridge of boats, and the gardens were planted with palms brought up from Basrah, and with exotics sent from provinces as far distant as Syria and Khurâsân. These lands on the western side were irrigated by branch canals from the Nahr-al-Ishâkî, which was dug by Ishâk ibn Ibrâhîm, Chief of Police to Mu'tasim, and this was more especially the district called Tîrhân, which Ya'kûbî speaks of as, " the plain of Sâmarrâ." When the Caliph Mu'tasim died in 227 (842), Sâmarrâ was in a fair way to rival Baghdâd in the grandeur of its palaces and public buildings. His two sons, Wâthik and Mutawakhil, who became Caliphs in turn, completed the work of their father. . . . Mutawakhil at first lived in the Hârûnî palace, but in 245 (859) he began to build himself a new palace three leagues north of Karkh, to which he extended the Great Road, and this with the new town which sprang up round it was called Al-Mutawakkiliyah or the Kaṣr-al-Ja'farî. The ruins of the Ja'farî palace still exist in the angle formed by the branching of the Nahrawân canal, and the older town of Al-Mâḥûzah came to be incorporated with it.

The glory of Sâmarrâ, however, naturally came to an end with the return of the Caliphs to Baghdâd, and its many palaces rapidly fell to ruin. In the 4th (10th) century Ibn Ḥawkal praises its magnificent gardens, especially those on the western side of the Tigris, but Mukaddasî says that Karkh on the north was, in his day, become the more populous quarter of the town. The great Friday mosque of Sâmarrâ, however, still remained, which Mukaddasî says was the equal of that of Damascus in magnificence. Its walls were covered with enamelled tiles (*mînâ*), it was paved with marble, and its roof was supported on marble columns. The minaret was remarkable for its great height, and Yâkût asserts it had been the minaret of the first mosque, having been built by Mu'tasim, who wished the Call to Prayer to be audible over all the city. . . . It is apparently this ancient minaret which still exists as the well-known Malwîyah tower, having a spiral outside stairway going to the top, which stands about half a mile to the north of modern Samarra; such was in any case the belief of Mustawfî who, in the early part of the 8th (14th) century, says that the minaret then existing of the Friday Mosque was 170 ells (gez) in height, " with

the gangway going up outside, the like of which was to be seen nowhere else," and he adds that the Caliph Mu'tasim had been the builder. . . . Mustawfî, however, adds that in his day, Sâmarrâ was for the most part a ruin, only in part inhabited, and this statement is confirmed by the description left us by his contemporary Ibn Batûtah, who was here in the year 730 (1330).[1]

Takrît, lying thirty miles north of Sâmarrâ on the west bank of the Tigris, was commonly counted as the last town of 'Irâk, and was famous for its strong castle which overlooked the river. Ibn Hawkal in the 4th (10th) century states that the majority of the population were Christians, and that they possessed a great monastery here. . . . Ibn Jubayr states that the city wall was 6000 paces in circuit, with towers in good repair, when he passed through Takrit in 580 (1184).

. . . . . .

The great Nahrawân canal left the Tigris a short distance below Dûr, as already said, and in its upper course was known as Al-Kâtûl-al-Kisrawî, "the Cut of the Chosroes," for it owed its origin to the Sassanian kings. It served to irrigate all the lands along the east bank of the Tigris from above Sâmarrâ to about a hundred miles south of Baghdâd, and Ibn Serapion mentions a great number of towns along its banks with bridges and weirs, but most of these have now disappeared. . . . Leaving Dûr . . . the canal passed to the back of the Mutawakhilîyah and other outlying quarters north of Sâmarrâ, and here it was crossed by a stone bridge. It next came to Itâkhiyah, a village and fief called after Itâkh the Turk, sometime captain of the guard to the Caliph Mu'tasim; this originally had been a monastery called Dayr Abu-Surrah, and here stood the bridge of the Chosroes (Kantarah-Kisrawiyah). The monastery took its name from Abu-Surrah the Kharijite. Next the Nahrawân came to Al-Muhammadîyah, a small town, where it was crossed by a bridge of skiffs.

At some distance below these places the Nahrawân was joined successively by the three lesser Kâtûls, namely, the

[1] Baladhuri, 297, 298. Ykb. 255-268. I.K. 94. I.S. 18. Ist. 85. I.H. 166. Muk. 122, 123. A.F. 289. Yak. III. 14-22, 82, 675; IV. 110. Ibn Khallikan, No. 8, p. 15. Mst. 139. I.B. II. 132.

Yahûdi, the Mamûnî, and the canal of Abu-l-Jund, which were all three taken from the left bank of the Tigris near Matîrah below Sâmarrâ, and which irrigated the fertile districts south of that city. Above their inflow, the Nahrawân was dammed back by the first of its many weirs, and where the first canal came in stood the large village of Al-Mamûnîyah. This, the Yahûdî (or Jew's) canal was crossed between Matîrah and Mamûnîyah by a stone bridge called Kanṭarah Wasîf, after Wasîf, one of the captains of the Turk bodyguard, in the reign of Mu'tasim. The second canal, called Al-Mamûnî, fell into the Nahrawân below the village of Al-Kanâtîr, " the Bridges." The third canal was called Abu-l-Jund—" Father, or Supplier, of the Army "—from the fact that the crops raised on the lands watered by it were used as rations for the troops. It was the largest canal of the three, and had been dug by Hârûn-ar-Rashîd, who built a palace there while superintending its construction. On its banks stood the town of Taffir, and here it was crossed by a bridge of boats. Yâkût, who had himself visited Taffir, describes it as occupying in the 7th (13th) century a waterless and pastureless plain, where wild animals dwelt, lying between Ba'kûbâ and Dakûkâ. . . .

Four leagues below where the last of these three canals joined the Nahrawan lay the town of Sûlâ or Salwa, otherwise called Bab Salwâ or Bâsalwâ. Below this, again, was the town of Ba'kûbâ, some ten leagues north of Baghdâd, and the capital of the Upper Nahrawân district. At Ba'kûbâ, the great Kâtûl canal changed its name, and became the Tâmarrâ, under which name it passed on to Bâjisrâ, and thence to the city called Jisr Nahrawân, beyond which the main waterway was more especially known as the Nahrawân canal. Near Bâjisrâ (the Aramaic form of Bayt-al-Jisr, the " bridge-house ") which stood in a well-cultivated district, surrounded by palm trees, the Tâmarrâ sent off a branch from its right bank known as the Nahr-al-Khâlis, which flowed out into the Tigris at Baradân to the north of Baghdâd, and from the Khâlis, many of the canals of East Baghdâd derived their water.

At Jisr Nahrawân, the Bridge-town, the Khurâsân road from Baghdâd crossed; and here a canal called the Nahr Bîn, branched from the right bank of the Nahrawân, flowing ultimately into the Tigris at Kalwâdhâ. From this the water

channels of the lower quarters of East Baghdâd derived their supply. One mile below Jisr Nahrawân the Diyâlâ canal branched south from the main stream, and after irrigating the outer gardens of East Baghdâd, reached the Tigris three miles below the capital.

South of Jisr Nahrawân the Great canal took the name of the Nahrawân exclusively, and after passing the Upper Weir (Shâdhurwân) it came to Jisr Bûrân, the bridge named after the wife of the Caliph Mamûn. Below this stood Yarzâtiyah (or possibly Barzâtiyah), and then the town of 'Abartâ, which Yâkût describes as of Persian origin, having important markets. Beyond 'Abartâ lay the Lower Weir and next Iskâf (or Uskâf) of the Banî Junayd, a city lying on both banks of the canal, and the Banî Junayd, Yâkût reports, had been chiefs of this district and famous for their hospitality. Yâkût adds that by the 7th (13th) century, when he wrote, the lands round here had gone entirely out of cultivation, for the Nahrawân had gradually silted up during the two previous centuries, the Saljûk Sultans having ever been too much occupied with their wars to attend to the needful dredging, and the mending of dykes: "farther," he adds, "their armies had made a roadway of this same canal, whereby both district and canal have now gone to ruin."

Beyond Uskâf the Nahrawân flowed on for nearly 60 miles between a continuous line of villages and farmsteads, down to Mâdharâyâ where its waters finally rejoined the Tigris. Mâdharâyâ stood to the south of Jubbul and above Al-Mubârak, which lay opposite the town of Nahr Sâbus. When Yâkût wrote it was in ruin, and its name is now no longer marked on the map, but it must have stood just below the present Kût-al-Amârah, where the Tigris now divides off from the Shaṭṭ-al-Ḥayy channel.[1]

This triple division of the Nahrawân canal (namely, the Kâtûl, the Tâmarrâ, and the Nahrawân proper), with the three branch canals (the Khâlis, the Nahr Bîn, and the Diyâlâ) which flowed back to the Tigris after watering the East Baghdâd region, is the explanation which Ibn Serapion has given of a very complicated skein of waterways. In

[1] Yarzâtiyah is possibly the present Razatiyah or Zaratiyah lying *above* 'Abartâ. Ykb. 321. I.S. 19, 20. Baladhuri, 297. I.R. 90. I.K. 175. Mas. Tanbih, 53. Yak. I. 252, 454; III. 539, 604; IV. 16, 381, 430.

later times the names were not always applied as he gives them. A glance at the present map shows that the Nahrawân, two hundred miles in length, must have taken up all the streams from the Persian highlands which, had it not been dug, would have flowed (at flood time) down to the left bank of the Tigris. The Tâmarrâ section was originally one of these streams, and Yâkût describes how its bed had been artificially paved for a length of seven leagues to prevent the sands absorbing its waters, which were divided up to irrigate the several districts of East Baghdâd. The Khâlis and the Diyâlâ were according to his account branches of the Tâmarrâ, (in any case the Khâlis of the Arab geographers cannot be the river known by this name at the present day, for this now flows at some distance to the north-west of Ba-'kûbâ), and Khâlis in the time of Yâkût was the name of the district, to the north of the Khurâsân road, which on one side came right up to the walls of East Baghdâd. In the 3rd (9th) century Ibn Rustah and Ibn Khurdâdbih give Nahrawân as the name of the mountain stream which came into the great Kâtûl at Salwâ; in the 8th (14th) century Mustawfî writes that the Nahrawân was the name of the Diyâlâ river, which rose in the mountains of Kurdistân, and which was formed by the junction of two streams, one the Shirwân river which lower down was called the Taymarrâ, the other the Hulwân river, which flowed down past Kaṣr Shîrîn and Khânikin; and these two streams united above Ba'kûbâ where they flowed into the Nahrawân canal.

. . . . . .

Chap. 6.—*Jazirah* . . . A reference to the map shows that in upper Mesopotamia the rivers Tigris and Euphrates receive their affluents almost exclusively on their left bank, that is, flowing from the north-east or north. During the period of the middle ages an exception occurs to this rule, namely, in the drainage of the affluent of the (greater) Khâbûr, the Hirmâs river from Nasîbîn. Just above its point of junction, the Hirmâs was dammed back at Sukayr-al-'Abbâs, and while a moiety passed on to join the Khâbûr which went to the Euphrates at Ḳarkîsiyâh, the main stream of the Hirmâs flowed into the Tigris on its right bank at Takrît, by the channel called the Nahr-ath-Tharthâr. . . . The source of the Hirmâs river is described

as at a spring six leagues north of Nasîbîn, where the water was dammed back by a masonry wall, clamped and with leaden joints. This, it was said, the Greeks had built, to preserve Nasîbîn from being flooded. . . . At the present day its stream is so shrunken in volume that it no longer forms a waterway, and this shrinkage had already begun in the 7th (13th) century when Yâkût wrote, for he reports that though, when the rains were plentiful, the flood still passed down its channel, in summer the bed was only marked by pools of water and brackish springs. Yâkût had himself travelled along its course, and adds it was reported that in old times boats used to pass down this stream from the Khâbûr to the Tigris; and in those days a succession of villages lined its banks, where, when he wrote, there was only a desert to be seen.

In the plain of Sinjâr the river Tharthâr cut through the line of hills called the Jabal Humrîn, otherwise the Jabal Bârimmâ and received from the north a small stream which flowed down from the city of Sinjâr. This in the 4th (10th) century was a walled town, surrounded by a most fertile district.

Al-Hadr, the Roman Hatra, mentioned by Ibn Serapion, stood lower down the Tharthâr, about halfway between Sinjâr and where that river joined the Tigris near Takrît. At Hadr are still to be seen the remains of a great Parthian palace, which Yâkût reports to have been built by a certain As-Sâtirûn of squared stones. . . . Originally, he says, there had been sixty great towers, with nine turrets between each tower and its neighbour, while a palace stood over against each tower outside the walls.

APPENDIX 17

THE GEOGRAPHICAL PART OF THE NUZHAT-AL-QULUB

Composed by HAMD-ALLAH-MUSTAWFI, of Qazwin, in 740 (1340). Translated by G. LE STRANGE

ANBĀR.—A town of the Third Clime, lying on the eastern bank of the Euphrates. King Luhrāsp the Kayānian built it as a prison for the captive (Jews) whom Nebuchadnezzar had brought here from Jerusalem. For this reason was it named "Anbār" (meaning the Barn, or Jail). King Sapor II. rebuilt the city, and Saffāh, the first of the Abbasid Caliphs, founded here many mighty edifices, making it his capital.

Sāmarrah.—Of the Fourth Clime, and lying on the eastern bank of the Tigris. Its gardens, with some of its buildings and villages, also occupy the western bank. . . . It was originally founded by Sapor II., and seeing that in climate it was the best of all the lands of Arabian 'Iraq, it came to be known as Surra-man-raa (meaning, "Who sees it, rejoices").

. . . . .

Ukbarā.—This place was built by Sapor II. It was a city formerly, but now is in ruin.

Qādisiyah (of the Tigris), a medium-sized town, and one of the Seven Cities of Arabian 'Irāq. It is now a ruin.

Madāin.—Of the Third Clime. . . . It was founded by King Tahmūrath, the Demon-binder, of the Pīshdādian dynasty, who named it Girdābād, and it was completed by Jamshīd, who named it Taysafūn (Ctesiphon). . . . King Jamshīd, the Pīshdādian, built over the Tigris at Madāin an arched bridge of stone and brick. This bridge Alexander the Greek destroyed, saying that it was too great a relic of the Persian Kings.

Nahr Malik (The Royal Canal).—Some say this was dug by King Solomon, others name Manūchirr the Pīshdādian, others again Alexander the Great; but the true version is that Sapor, grandson of Darius, caused this canal to be made from the Euphrates (to the Tigris).

APPENDIX 18

Journal of the Royal Asiatic Society

Art. 1.—DESCRIPTION OF MESOPOTAMIA AND BAGHDAD Written about the Year A.D. 900 by IBN SERAPION. Translation by GUY LE STRANGE

Section I

ACCOUNT OF THE RIVER TIGRIS FROM ITS SOURCE TO ITS MOUTH

. . . . .

Next it comes to the city of Surra-man-raa (Samarra), which lies on its bank. After this it passes the following: Al-Kādīsīya, Al-Ajama, Al-'Alth, Al-Hazīra, As-Sawāmi, 'Ukbara, Awānā, Busṛā, Bazūghā, Al-Baradān, Al-Mazrafa, Kaṭrabbul, Arb-Shamunāsiya, and next divides the City of Peace (Baghdād), which lies across the river on either bank.

. . . . .

Samarrā, sometimes written Sāmīrā, was an ancient Persian town, the name of which the Caliph Al-Mu'tasim changed, for the sake of good augury, into Surra-man-raa, meaning, " Who sees it, rejoices."

. . . . .

Al-Kādisīya, also on the eastern bank of the Tigris, some three leagues below Samarrā, still exists. . . . Al-Kādisīya, on the Tigris, is said by Yakut (IV. 9) to be famous for its glass works. Al-Ajama, meaning " the thicket," is not marked on the map, and apparently is not mentioned by any other authority.

Al-'Alth is still found on the map, and Mukaddasî (p. 123)—who, however, writes the name without the article—speaks of it as a large town lying on a canal derived from the Tigris. Its wells of sweet water were easy of access, and its men were handsome. Yakut (III. 3) notes it as the first place in Al-'Irak on the east side of the Tigris coming from Persia. By the change of bed, however, Al-'Alth now lies on the *western* bank of the river. From below Al-Kādisīya, and down almost to Baghdad, the Tigris in the tenth century A.D. flowed by a more westerly course than it does at the present day. The old river-bed with the ruins of 'Ukbarā, Awānā, and Busrā, all lying on its eastern bank, is still marked on the maps. At the present time, however, owing to the change of course, these places stand at a considerable distance from the *western* bank of the Tigris. That the western course was the one followed by the river in Ibn Serapion's day admits of no doubt, for the great post-road from Baghdād to Samarrā, and the north, passed up the eastern bank of the Tigris, going through Al-Baradān and 'Ukbarā to Al-Kādisīya; further, amongst other early authorities, Bilādhuri (p. 249), in the ninth century A.D., couples together 'Ukbarā and Al-Baradān as lying to the east of the Tigris, and the two towns are so marked in the native map of the Paris MS., a work of the tenth century A.D. When the river changed over to its present eastern course, I have been unable to ascertain exactly. As early as the date of Mas'udi, A.H. 332 (943), the bed appears to have begun to shift, for in his *Meadows of Gold* (I. 223) this author refers to the law-suits to which this changing of the stream had given rise, between the landowners of the eastern and western banks immediately above Baghdad. The first clear mention of 'Ukbarā as lying (as at the present day) to the *west* of the Tigris is, I believe, given by the author of the *Marāṣid* (II. 270), who wrote about the year 1300 A.D. This author, correcting Yākūt, remarks that both 'Ukbarā and Awānā stood in his day at a considerable distance to the *west* of the Tigris, that being a consequence of the changing of the river-bed, *eastwards*, into the course then known as Ash-Shuṭayṭa—"the little Shatt" or stream. The exact date of this change, however, he does not give; but he adds that the Caliph Al-Mustanṣir, between A.H. 623 and 640 (1226-42), had dug a canal to irrigate the lands

which the Tigris, by its shifting had left dry; at this epoch, therefore, the change must have been complete.

(5) Neither Al-Ḥazīra, meaning "the Enclosure," nor As-Sawāmi, "the Cells," have left any trace of their names on the present maps, and the latter place is not apparently mentioned by any other authority. Yākūt (II. 292) states that Al-Ḥazīra was a large village on the Dujayl Canal, where cotton stuffs, called Kirbās, were manufactured for export; and in another passage (II. 235) he speaks of it as lying opposite to Harba. . . .

In another passage Yākūt (I. 178) speaks of Al-Ḥazīra as lying near the village of Balad, a place which like Harba still exists.

(6) The ruins of 'Ukbarā, Awānā, and Busṛā, lying one close to the other, still exist on the left bank of the old bed of the Tigris, as has been already mentioned. Yākūt (III. 705, I. 395, and I. 654) describes these towns as of the Dujayl District, lying some ten leagues distant from Baghdad, being very pleasant places surrounded by gardens.

Bazūghā, Al-Baradān, and Al-Mazrafa, all three, lay on the eastern bank of the Tigris. Al-Baradān, which gave its name to a gate and bridge in eastern Baghdad, Kudāma, gives as the first stage on the north road, and it was four leagues distant from the capital. The existing ruin at Baḍrân doubtless represents the older name. Bazūghā has apparently disappeared entirely; according to Yākūt (I. 606) it lay near Al-Mazrafa and about two leagues from Baghdād. Of Al-Mazrafa the name is apparently preserved in the district of Mazurfeh, marked on the map as immediately to the north of eastern Baghdād. According to Yākūt (IV. 520), Al-Mazrafa was a large village lying three leagues above the city.

. . . . . .

Section II

Thence the Euphrates passes to Alūsa and An-Nāwusa, coming next to the city of Hīt, from whence it flows by Ar-Rabb and Al-Anbār.

NOTE.—An-Rabb is the halting-place on the road from Hīt to Al-Anbār, being twelve leagues or two marches from the former and seven leagues or one march from the latter

city. (*Cf.* Ibn Khurdādbih, p. 72; Kudāma, p. 217; and Muḳaddasi, p. 134.) From this point, as I shall have cause to show later on, the *old* Dujayl canal branched off from the Euphrates.

Section III

AFFLUENTS OF THE EUPHRATES

There also flows into the Euphrates, at one spot, the waters of two rivers that have joined above (to form one stream). One of these is called Al-Khābūr, and the other Al-Hirmās. . . .

Passing on, this single stream, formed by the united rivers, irrigates the domains which lie to the north of Karkīsīyā, and finally flows into the Euphrates, on the western bank near Karkīsīyā.

From the Hirmās, also, there flows off a river called Ath-Tharthar. Its origin is at Sukayr-al-'Abbās. It passes through the midst of the plain, and runs into the Tigris below Takrīt, after passing Al-Ḥaḍr and cutting through the hills called Jabal Bārimmā.

(7) The Khābūr is the river which the Greeks called Chaboras. The origin of the name Hirmās appears to be unknown. The Greek geographers called the river either *Saocoras* or *Mygdonius*. The Khābūr has kept its name to the present time, but the river of Naṣībīn, the Hirmās, is now generally known as the Jaghjagha.

(8) The account of the river Ath-Tharthar is repeated below in Section VII. At the present day its stream is so shrunk in volume that it no longer forms a natural waterway between the Euphrates and the Tigris. According to Ibn Serapion, it flowed out from the Hirmās at Sukayr (the "little Dam" of) al-'Abbās. . . .

Yāḳūt (I. 921) describes the bed of the Tharthar, in his day (13th century A.D.) as running in flood when the rains were plenteous, but in the summer as showing only pools of warm water, with here and there brackish springs. He had himself travelled along its course, and adds that of old, as it was reported, boats could pass up its stream, and that many villages lay along its banks in the midst of well-cultivated lands.

Al-Ḥaḍr is the ancient *Hatra*, still standing with the

ruins of a Parthian palace. Yāḳūt calls it the city of a certain As-Sāṭirūn, adding (II. 281) that it is built of squared stones, which form chambers, with their roofs and doors likewise of stone. There were originally sixty towers, with three turrets in between each tower, and a castle stood over against each.

"Jabal Bārimmā, Yāḳūt says (I. 464), is also known as Jabal Humrīn, and this is the chain of hills which stretches across Upper Mesopotamia from west to east, till it reaches the mountains of Persia. Through this chain the Tigris cuts its way at As-Sinn.

Section V

From the Euphrates is taken a canal called Dujayl. Its beginning is a league or more above the village of Ar-Rabb. Then it passes cross-wise, and from it branch many canals which water the domains of Maskin and Katrabbul, and the hamlets pertaining thereto, and finally it falls into the Tigris between 'Ukbarā and Baghdād.

Section VII

There also falls into the (Tigris) a river called Ath-Tharthar. It flows out from the Al-Hirmās river, which is the river of Naṣībīn; and passing on it cuts through a mountain which lies across its course. Thence flowing through the plain it passes Al-Ḥaḍr, and on through the plain of Sinjār. Finally it falls into the Tigris, on the western bank of the same, at a distance of two leagues above the city of Takrit.

APPENDIX 19

THE IRRIGATION OF MESOPOTAMIA

By Sir W. Willcocks, K.C.M.G., F.R.G.S.

The Future of Mesopotamia

Like the delta of the Nile, the delta of the Tigris and Euphrates will depend for its full development on the goodwill of those who hold the upper waters of the two rivers, in the regions where they can be led out of their channels and utilised for irrigation. Heavy irrigation works carried out on the upper Euphrates and its tributaries . . . would deprive the lower Euphrates of the whole of its low supply; while similar works carried out on the upper Tigris and its tributaries, the two Zabs, . . . would seriously reduce the low supply of the Lower Tigris. . . . The ancients provided for contingencies like these on the lower Euphrates by the construction of reservoirs, in the deserts south of Ramadi and north of Kerbala, and by the construction of a reservoir in the heart of the delta on the edge of the two Sipparas for the use of Babylon exclusively. When working in Baghdad I used often to think that many of the wars between Assyria, which held the upper waters of the two rivers, and Babylonia, which depended on the lower, must have been undertaken to secure complete control of the water. . . .

The ancient Babylonians controlled the Euphrates by means of powerful escapes into two depressions in the Arabian deserts north-west of Babylon. The northern depression, known to-day as the "Habbania," covers an area of 150 square miles, and is some 25 feet deep in flood. . . . The southern depression, known to-day as the "Abu-Dibis," covers 475 square miles, and is 20 feet deep to the level of the sill where the water would naturally flow back into the Euphrates valley near Kerbala. In ancient times these depressions were used not only as escapes for controlling

the floods, but also as reservoirs for feeding the rivers in low supply. They were eminently suited for both purposes, and, by the construction of insignificant banks, were rendered capable of accommodating six milliards of tons of water, of which about a quarter was utilised for feeding the rivers in the time of low supply. . . . In addition to these reservoirs, they had numerous and capacious canals, and the low-lying Pallacopas, or Hindia, branch of the Euphrates, which took off from above Babylon and discharged the waters of the river into the Babylonian marshes. The first public work Alexander the Great undertook in Babylon was the excavation of a new head on solid ground for the Pallacopas, known some years ago as the Hindia branch, and to-day the main stream of the Euphrates. . . .

Provided with escapes into depressions in the deserts, whose contours can be followed for many scores of miles by the presence of thick belts of Euphrates shells, with many capacious canals, with regulation at the head of the Pallacopas branch, and with well-constructed dykes protected by brushwood, the Euphrates was thoroughly controlled. . . .

We now turn to the Tigris. Some kilometres above the spot where the Tigris entered its delta the valley was barred by a massive earthen dam, and the river turned over the hard conglomerate, so that it could flow at a high level and irrigate the country on both banks. From the upstream side of the dam were taken the three heads of the great Nahrwan Canal. . . . Nimrod is credited with having constructed the dam and turned the river. . . . On one side of the river is to be seen to-day an imposing fortress, and on the other side the wall of Semiramis, miscalled the Median Wall on some maps. These works protected both flanks of the dam. . . . Though the ancients harnessed the Tigris for irrigation, they never controlled the floods of this river as they had those of the Euphrates. . . .

. . . . .

(20) The Tigris enters its delta at Beled, south of Samarra, where were situated the famous weirs of antiquity, which, judging from the bed-level of the Al Kaim head of the Nahrwan, must have held up the water of the Tigris to a height of ten metres. . . . The dam is locally known as Nimrod's Dam to-day.

APPENDIX 20

THE HOLY BIBLE

PSALM 137.—By the rivers of Babylon, there we sat down; yea, we wept, when we remembered Zion.

(2) We hanged our harps upon the willows in the midst thereof.

(3) For there they that carried us away captive required of us a song; and they that wasted us required of us mirth, saying, Sing us one of the songs of Zion.

(8) O daughter of Babylon, who art to be destroyed; happy shall he be, that rewardeth thee as thou hast served us.

(9) Happy shall he be, that taketh and dasheth thy little ones against the stones.

ISAIAH, *Chap.* 13.—(1) The burden of Babylon, which Isaiah the son of Amoz did see.

(15) Every one that is found shall be thrust through; and every one that is joined unto them shall fall by the sword.

(16) Their children also shall be dashed to pieces before their eyes; their houses shall be spoiled, and their wives ravished.

(17) Behold, I will stir up the Medes against them, which shall not regard silver; and as for gold, they shall not delight in it.

(18) Their bows also shall dash the young men to pieces; and they shall have no pity on the fruit of the womb; their eye shall not spare children.

(19) And Babylon, the glory of kingdoms, the beauty of the Chaldees' excellency, shall be as when God overthrew Sodom and Gomorrah.

(20) It shall never be inhabited, neither shall it be dwelt in from generation to generation: neither shall the Arabian pitch tent there; neither shall the shepherds make their fold there.

(21) But wild beasts of the desert shall lie there; and their houses shall be full of doleful creatures; and owls shall dwell there, and satyrs shall dance there.

(22) And the wild beasts of the islands shall cry in their desolate houses, and dragons in their pleasant palaces: and her time is near to come, and her days shall not be prolonged.

Chap. 14.—(4) And thou shalt take up this proverb against the king of Babylon, and say, How hath the oppressor ceased! the golden city ceased!

(22) For I will rise up against them, saith the Lord of hosts, and cut off from Babylon the name, and remnant, and son, and nephew, saith the Lord.

(23) I will also make it a possession for the bittern, and pools of water: and I will sweep it with the besom of destruction, saith the Lord of hosts.

Chap. 21.—(2) . . . Go up, O Elam: besiege, O Media:

(9) . . . Babylon is fallen, is fallen; and all the graven images of her gods he hath broken unto the ground.

Chap. 44.—(24) Thus saith the Lord, I am the Lord that maketh all things;

(28) That saith of Cyrus, He is my shepherd, and shall perform all my pleasure: even saying to Jerusalem, Thou shalt be built; and to the temple, Thy foundation shall be laid.

Chap. 45.—(1) Thus saith the Lord to his anointed, to Cyrus, whose right hand I have holden, to subdue nations before him; and I will loose the loins of kings, to open before him the two leaved gates; and the gates shall not be shut;

(2) I will go before thee, and make the crooked places straight: I will break in pieces the gates of brass, and cut in sunder the bars of iron:

(3) And I will give thee the treasures of darkness, and hidden riches of secret places, that thou mayest know that I, the Lord, which call thee by thy name, am the God of Israel.

(4) For Jacob my servant's sake, and Israel mine elect, I have even called thee by thy name: I have surnamed thee, though thou hast not known me.

Chap. 46.—(1) Bel boweth down, Nebo stoopeth, their idols were upon the beasts, and upon the cattle: your

carriages were heavy loaden; they are a burden to the weary beast.

(2) They stoop, they bow down together; they could not deliver the burden, but themselves are gone into captivity.

Chap. 47.—(1) Come down, and sit in the dust, O virgin daughter of Babylon, sit on the ground: there is no throne, O daughter of the Chaldeans: for thou shalt no more be called tender and delicate.

(5) Sit thou silent, and get thee into darkness, O daughter of the Chaldeans: for thou shalt no more be called, The lady of kingdoms.

(7) And thou saidst, I shall be a lady for ever:

(8) Therefore hear now this, thou that art given to pleasures, that dwellest carelessly, thou sayest in thine heart, I am, and none else beside me; I shall not sit as a widow, neither shall I know the loss of children:

(9) But these two things shall come to thee in a moment in one day, the loss of children and widowhood.

JEREMIAH, *Chap.* 50.—(1) The word that the Lord spake against Babylon and against the land of the Chaldeans by Jeremiah the prophet.

(2) Declare ye among the nations, and publish, and set up a standard; publish, and conceal not: say, Babylon is taken, Bel is confounded, Merodach is broken in pieces; her idols are confounded, her images are broken in pieces.

(3) For out of the north there cometh up a nation against her, which shall make her land desolate, and none shall dwell therein: they shall remove, they shall depart, both man and beast.

(9) For, lo, I will raise and cause to come up against Babylon an assembly of great nations from the north country: and they shall set themselves in array against her; from thence she shall be taken: their arrows shall be as of a mighty expert man; none shall return in vain.

(10) And Chaldea shall be a spoil: all that spoil her shall be satisfied, saith the Lord.

(12) . . . behold, the hindermost of the nations shall be a wilderness, a dry land, and a desert.

(13) Because of the wrath of the Lord it shall not be inhabited, but it shall be wholly desolate: every one that

goeth by Babylon shall be astonished, and hiss at all her plagues.

(14) Put yourselves in array against Babylon round about: all ye that bend the bow, shoot at her, spare no arrows; for she hath sinned against the Lord.

(15) Shout against her round about; she hath given her hand: her foundations are fallen, her walls are thrown down.

(17) Israel is a scattered sheep, the lions have driven him away; first the king of Assyria hath devoured him, and last this Nebuchadnezzar king of Babylon hath broken his bones.

(22) A sound of battle is in the land, and of great destruction.

(23) How is the hammer of the whole earth cut asunder and broken! how is Babylon become a desolation among the nations!

(24) I have laid a snare for thee, and thou art also taken, O Babylon, and thou wast not aware: thou art found, and also caught, because thou hast striven against the Lord.

(26) Come against her from the utmost border, open her storehouses; cast her up as heaps, and destroy her utterly: let nothing of her be left.

(29) Call together the archers against Babylon: all ye that bend the bow, camp against it round about; let none thereof escape.

(30) Therefore shall her young men fall in the streets, and all her men of war shall be cut off in that day, saith the Lord.

(32) . . . and I will kindle a fire in his cities, and it shall devour all round about him.

(35) A sword is upon the Chaldeans, saith the Lord, and upon the inhabitants of Babylon, and upon her princes, and upon her wise men.

(38) A drought is upon her waters; and they shall be dried up: for it is the land of graven images, and they are mad upon their idols.

(39) Therefore the wild beasts of the desert, with the wild beasts of the islands, shall dwell there, and the owls shall dwell therein: and it shall be no more inhabited for ever: neither shall it be dwelt in from generation to generation.

(40) As God overthrew Sodom and Gomorrah, and the neighbour cities thereof, saith the Lord; so shall no man abide there, neither shall any son of man dwell therein.

(41) Behold, a people shall come from the north, and a great nation, and many kings shall be raised up from the coasts of the earth.

(42) They shall hold the bow and the lance; they are cruel, and shall not shew mercy: their voice shall roar like the sea, and they shall ride upon horses, every one put in array, like a man to the battle, against thee, O daughter of Babylon.

(43) The king of Babylon hath heard the report of them, and his hands waxed feeble; anguish took hold of him, and pangs as of a woman in travail.

(44) Behold, he shall come up like a lion from the swelling of Jordan unto the habitation of the strong; but I will make them suddenly run away from her.

(46) At the noise of the taking of Babylon the earth is moved, and the cry is heard among the nations.

Chap. 51.—(1) Thus saith the Lord, Behold, I will raise up against Babylon, and against them that dwell in the midst of them that rise up against me, a destroying wind;

(2) And will send unto Babylon fanners, that shall fan her, and shall empty her land: for in the day of trouble they shall be against her round about.

(3) Against him that bendeth let the archer bend his bow, and against him that lifteth himself up in his brigandine: and spare ye not her young men; destroy ye utterly all her host.

(4) Thus the slain shall fall in the land of the Chaldeans, and they that are thrust through in her streets.

(7) Babylon hath been a golden cup in the Lord's hand, that made all the earth drunken: the nations have drunken of her wine; therefore the nations are mad.

(8) Babylon is suddenly fallen and destroyed: howl for her; take balm for her pain.

(9) We would have healed Babylon, but she is not healed: forsake her, and let us go every one into his own country.

(11) Make bright the arrows; gather the shields: the Lord hath raised up the spirit of the kings of the Medes: for his device is against Babylon, to destroy it.

(12) Set up the standard upon the walls of Babylon, make the watch strong, set up the watchmen, prepare the ambushes.

(13) O thou that dwellest upon many waters, abundant in treasures, thine end is come, and the measure of thy covetousness.

(14) The Lord of hosts hath sworn by himself, saying, Surely I will fill thee with men as with caterpillars; and they shall lift up a shout against thee.

(25) Behold, I am against thee, O destroying mountain, saith the Lord, which destroyeth all the earth; and I will stretch out my hand upon thee, and roll thee down from the rocks, and will make thee a burnt mountain.

(26) And they shall not take of thee a stone for a corner, nor a stone for foundations; but thou shalt be desolate for ever, saith the Lord.

(27) Set ye up a standard in the land, blow the trumpet among the nations, prepare the nations against her, call together against her the kingdoms of Ararat, Minni, and Ashchenaz; appoint a captain against her; cause the horses to come up as the rough caterpillars.

(28) Prepare against her the nations with the kings of the Medes, the captains thereof, and all the rulers thereof, and all the land of his dominion.

(29) And the land shall tremble and sorrow: for every purpose of the Lord shall be performed against Babylon, to make the land of Babylon a desolation without an inhabitant.

(30) The mighty men of Babylon have forborne to fight, they have remained in their holds: their might hath failed; they became as women: they have burned her dwelling-places; her bars are broken.

(31) One post shall run to meet another, and one messenger to meet another, to shew the king of Babylon that his city is taken at one end.

(32) And that the passages are stopped, and the reeds they have burned with fire, and the men of war are affrighted.

(36) Therefore thus saith the Lord, Behold I will plead thy cause, and take vengeance for thee; and I will dry up her sea, and make her springs dry.

(37) And Babylon shall become heaps, a dwelling place for dragons, an astonishment and a hissing, without an inhabitant.

(41) How is Sheshach taken! and how is the praise of the whole earth surprised! how is Babylon become an astonishment among the nations!

(42) The sea is come up upon Babylon: she is covered with the multitude of the waves thereof.

(43) Her cities are a desolation, a dry land, and a wilderness, a land wherein no man dwelleth, neither does any son of man pass thereby.

(44) And I will punish Bel in Babylon, and I will bring forth out of his mouth that which he hath swallowed up: and the nations shall not flow together any more unto him; yea, the wall of Babylon shall fall.

(53) Though Babylon should mount up to heaven, and though she should fortify the height of her strength, yet from me shall spoilers come unto her, saith the Lord.

(54) A sound of a cry cometh from Babylon, and great destruction from the land of the Chaldeans.

(55) Because the Lord hath spoiled Babylon, and destroyed out of her the great voice; when her waves do roar like great waters, a noise of their voice is uttered:

(56) Because the spoiler is come upon her, even upon Babylon, and her mighty men are taken; every one of their bows is broken:

(57) And I will make drunk her princes, and her wise men, her captains, and her rulers and her mighty men: and they shall sleep a perpetual sleep, and not wake, saith the King, whose name is the Lord of hosts.

(58) Thus saith the Lord of hosts, The broad walls of Babylon shall be utterly broken, and her high gates shall be burned with fire; and the people shall labour in vain, and the folk in the fire, and they shall be weary.

DANIEL, *Chap.* 4.—(1) Nebuchadnezzar the king, unto all people, nations and languages, that dwell in all the earth: Peace be multiplied unto you.

(30) The king spake and said, Is not this great Babylon that I have built for the house of the kingdom, by the might of my power, and for the honour of my majesty?

Chap. 5.—(1) Belshazzar the king made a great feast to a thousand of his lords, and drank wine before the thousand.

(2) Belshazzar, while he tasted the wine, commanded to

bring the golden and silver vessels which his father Nebuchadnezzar had taken out of the temple which was in Jerusalem; that the king, and his princes, his wives, and his concubines, might drink therein.

(3) Then they brought the golden vessels that were taken out of the temple of the house of God which was at Jerusalem; and the king, and his princes, his wives, and his concubines, drank in them.

(4) They drank wine, and praised the gods of gold, and of silver, of brass, of iron, of wood, and of stone.

(5) In the same hour came forth fingers of a man's hand, and wrote over against the candlestick upon the plaister of the wall of the king's palace; and the king saw the part of the hand that wrote.

(6) Then the king's countenance was changed, and his thoughts troubled him, so that the joints of his loins were loosed, and his knees smote one against another.

(30) In that night was Belshazzar the king of the Chaldeans slain.

(31) And Darius the Median took the kingdom, being about threescore and two years old.

REVELATION, *Chap.* 14.—(8) And there followed another angel, saying, Babylon is fallen, is fallen, that great city.

Chap. 16.—(12) And the sixth angel poured out his vial upon the great river Euphrates; and the water thereof was dried up, that the way of the kings of the east might be prepared.

Chap. 18.—(1) And after these things I saw another angel come down from heaven,

(2) And he cried mightily with a strong voice, saying, Babylon the great is fallen, is fallen, and is become the habitation of devils, and the hold of every foul spirit, and a cage of every unclean and hateful bird.

(9) And the kings of the earth shall bewail her,

(10) Saying, Alas, alas that great city Babylon, that mighty city! for in one hour is thy judgment come.

(15) The merchants of these things, shall stand afar off, weeping and wailing,

(16) And saying, Alas, alas that great city, that was clothed in fine linen, and purple, and scarlet, and decked with gold, and precious stones, and pearls!

(17) For in one hour so great riches is come to nought. And every shipmaster, and all the company in ships, stood afar off,

(18) And cried when they saw the smoke of her burning, saying, What city is like unto this great city!

(19) And they cast dust on their heads, and cried, weeping and wailing, saying, Alas, alas that great city, wherein were made rich all that had ships in the sea by reason of her costliness! for in one hour is she made desolate.

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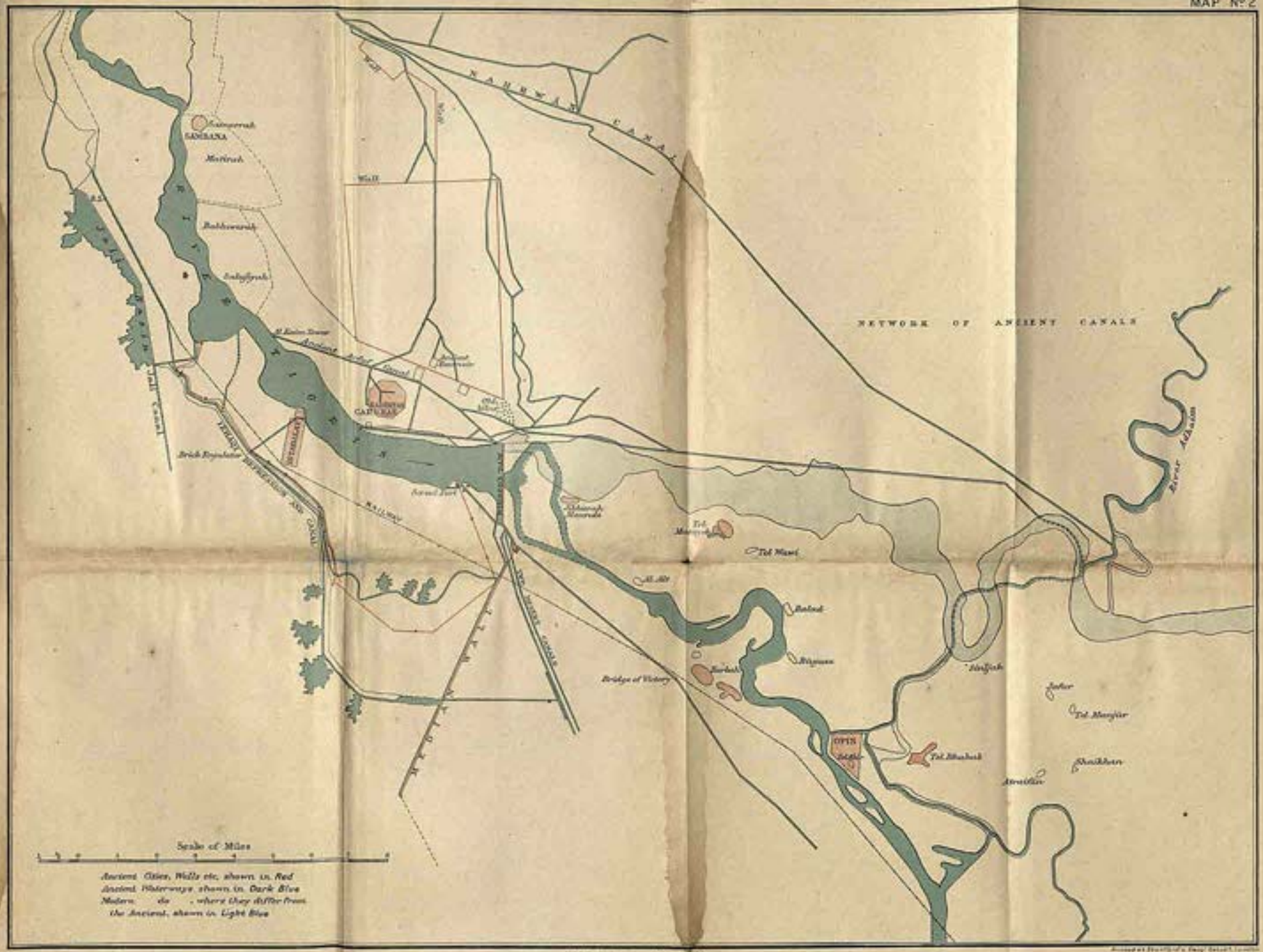
THE END

LIBRARY OF THE BOMBAY

Scale of Miles
March of Cyrus the Younger
March of Emperor Julian
Line taken by Julian's Fleet
Ancient Cities, Walls etc. shown in Red
Ancient Waterways shown in Dark Blue
Modern do , where they differ from the Ancient, shown in Light Blue
RIVER TIGRIS
JABAL HAMRIN
LAKE SHAKI
High Sandhills
Tekrit
TIKRIT
DURA Dasr
Montarat
Aski Baghdad
SAMARRA SUMERE Samarrah
River Adhaim
Jabal Hamrin
Jabal Gilabat
Jabal Shakil
Jabal Qumar
Jubbah Dagh
Khanaqin
Qizil Robat
MAHRAN
Tel Muqdam
Tel Mound
Tel West
Tel Baladi
Bigaia
Tel Jafar
Tel Manjur
Tel Lahab
Sheikhan
Baladruz
Jath Canal
Sumaichah
Sumaichah P.S.
Ukbara
Bhaubah HUTMBERA
Traces of ancient canals
RAILWAY
Tel Ukair
Tel Muhammad
Tel Ibrahim
Tel Mohammed
Tel Ibrahim
LAKE AGGAR QUF
BAGHDAD
SALMATA SUHUCAH
Tel Muhammad
Tel Ibrahim
Tel Mohammed
Dujailiyah DIACIRA
Hill of OZOGARDANA Spur
PYLAE Narrow pass of rock
MARCH OF CYRUS
MARCH OF JULIAN
PLATEAU
GRAND REVIEW (Xen. i. 7. 10)
Sittaca
Tel Ibrahim
Tel Mohammed
Tel Ibrahim
Tel Mohammed
Tel Ibrahim
Tel Mohammed


NAHRWAN CANAL
EUPHRATES
TIGRIS
NETWORK OF ANCIENT CANALS
SAMARRA
Mashrah
Bakbawaih
Sabbatyrah
Ancient Bed of Euphrates
Ancient Bed of Tigris
Old Mound
CAPTURED GUN
Brick Enclosure
Ancient Port
Modern Port
Tel Mauri
Bridge of Victory
Tel Mahuk
Shaikhan
Scale of Miles
Ancient Cities, Walls etc. shown in Red
Ancient Waterways shown in Dark Blue
Modern do , where they differ from the Ancient, shown in Light Blue

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on 08 January, 2019